DOCUMENT RESUME

ED 137 562	CE 010 538
TITLE	Proceedings. Leadership Conference for Instructors and Administrators in Allied Health and Nursing (Louisville, Kentucky, February 16-18, 1976).
INSTITUTION	Georgia Univ., Athens. Div. of Vocational Education.
SPONS AGENCY	Health Resources Administration (DHEW/PHS), Atlanta, Ga. Region 4 Office.
PUB DATE	76
CONTRACT	294-74-0008
NOTE	339p.
EDRS PRICE	MF-$0.83 HC-$18.07 Plus Postage.
DESCRIPTORS	*Change Strategies; Conferences; Curriculum Development; Health Occupations Education; *Health Services; Higher Education; *Leadership; *Manpower Utilization; *Nursing; Post Secondary Education; Professional Personnel; *Program Administration; Program Improvement; Public Health Legislation; Trend Analysis
IDENTIFIERS	*Allied Health Professions

ABSTRACT

The primary purpose of the conference described in this report was to provide a special type of leadership experience in the health professions for graduate assistants, fellowship recipients, and selected workshop participants who had demonstrated a high level of readinesss for opportunities to develop their leadership competencies. Titles of conference presentations included are "Current Health Issues in International Perspective," "Leadership in Relation to National Health Legislation," "Implementation of National Health Legislation," "Innovation and the Change Process," "Roles and Responsibilities for Effecting Change," "In the Forefront of Change--Nonconventional Approaches to Diagnosis and Treatment," "Utilizing Information Storage and Retrieval Systems," "The Faculty Member as Change Agent," "Developing and Implementing Curriculum Innovation," "Effecting Change in the Distribution of Health Manpower," "Approaches to the Development of Leadership Skills and Strategies for Change," and "Putting Knowledge to Work: Patterns and Trends in Health Personnel, Relating Patterns and Trends to Public Law 93-641, and Are There Solutions?" The appendixes include names and addresses of advisory committee members, conference staff, and conference participants; and other information relating to legislation, professional organizations, and the conference discussions. (HD)

Documents acquired by ERIC include many informal unpublished materials not available from other sources. ERIC makes every effort to obtain the best copy available. Nevertheless, items of marginal reproducibility are often encountered and this affects the quality of the microfiche and hardcopy reproductions ERIC makes available via the ERIC Document Reproduction Service (EDRS). EDRS is not responsible for the quality of the original document. Reproductions supplied by EDRS are the best that can be made from the original.

ED137562

PROCEEDINGS

Leadership Conference for Instructors and Administrators in Allied Health and Nursing

February 16-18, 1976
Louisville, Kentucky

conducted by
Center for Teacher Education—Allied Health and Nursing
University of Georgia
Athens, Georgia

Mary Elizabeth Millikin, Ed.D.
Project Director

supported by
Contract #294-74-0008
Region IV Office, Bureau of Health Manpower
Health Resources Administration
Atlanta, Georgia

Johnny W. Browne
Project Officer

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

leadership

CE 010 538

FOREWORD

On July 1, 1974, the University of Georgia entered into a contract with the Region IV Office, Health Resources Administration to establish a regional center for teacher education to serve health professionals who have teaching responsibilities. Responsibility for the project was assigned to the Health Occupations Teacher Education Program in the Division of Vocational Education, College of Education, University of Georgia.

In accordance with the contractual emphasis on preparing qualified health professionals to fulfill leadership roles for the health field, a Leadership Conference for Instructors and Administrators in Allied Health and Nursing was held in Louisville, Kentucky, February 15-18, 1976. The primary purpose of the Conference was to provide a special type of leadership experience for graduate assistants, Fellowship recipients and selected workshop participants who had demonstrated a high level of readiness for opportunities to develop their leadership competencies. For these persons, planning and conducting the Conference served as the vehicle for leadership development. In addition, the program of the Leadership Conference focused on aspects of leadership which would benefit faculties, both from the standpoint of their own leadership skills and from that of preparing them to orient their students--the health professionals of the future--to aspects of leadership in the health field.

This Proceedings consists of the presentations, audience comments, group reports from the problem-solving activities (edited for improved readability and continuity), and handout materials provided for the Conference participants. The Proceedings can serve as a resource for faculties and students of allied health and nursing education programs on topics such as "current status of the health system," "the legislative process," "influencing the rules and regulations for implementation of health statutes," "the change process," "nonconventional healing as an emerging emphasis in health care," "the implications of current health legislation for state and local health care system

The Proceedings will be disseminated by (1) an initial mailing to Conference participants, (2) deans of schools of allied health, (3) deans of schools of nursing, (4) department heads in junior colleges listed in the Directory of Allied Health Programs in Junior Colleges as having a health care preparatory program. Remaining copies will be provided upon written request until the present supply is exhausted.

Permission is hereby granted for reproduction of portions of the Proceedings for instructional purposes--i.e., distribution at no charge to students in health care preparatory programs. Permission has been granted to the American Medical Association for reprinting a modified version of Ms. Lester's presentation in a forthcoming publication to be distributed by the AMA's Department of Allied Health Evaluation.

Mary Elizabeth Milliken, Ed.D.
Project Director

ACKNOWLEDGEMENTS

Many persons contributed to the success of the Leadership Conference for Instructors and Administrators in Allied Health and Nursing. The Conference was held in Louisville, Kentucky, at the invitation of the Kentucky Allied Health Consortium, with assistance of the Kentucky Hospital Association volunteered for coordinating local arrangements. Miss Carol Usher and Mr. Leslie Greeman of the KHA staff are due particular recognition for their contributions.

Members of the Advisory Committee assisted in planning the program and identifying speakers; their contributions resulted in an outstanding program. Ultimately, the success of the Conference must be attributed to the excellence of the speakers, to the skill of the group discussion leaders, and to the interest and enthusiasm of the participants.

Brenda Thomas and Linda Self of the Center for Teacher Education--Allied Health and Nursing devoted many hours to the numerous tasks involved in preparing for a conference. Debra Crisman assumed a high degree of responsibility for preparing this Proceedings. To these staff members, a special thank you is extended for their efforts.

The Conference was deemed highly successful by the Center staff and also by the participants. The contributions of many persons to this success is gratefully acknowledged.

TABLE OF CONTENTS

Foreword

Acknowledgements

I. Background

Conference Program 1

Overview of the Conference — Mary Elizabeth Milliken 7

II. Presentations and Panel Reactions

Current Health Issues in International Perspective — Ruth Roemer 15

Leadership in Relation to National Health Legislation — Mary Allen Jolly 57

Implementation of National Health Legislation — Juliette Lester 83

Innovation and the Change Process — Carroll A. Gardner, Jr. 107

Panel: Roles and Responsibilities for Effecting Change — Archie G. Lugenbeel, Keith Johnson, Kenneth Skaggs 117

In the Forefront of Change--Nonconventional Approaches to Diagnosis and Treatment — Evelyn Monahan 135

Utilizing Information Storage and Retrieval Systems — Leslie Wykoff 159

The Faculty Member as Change Agent — Jerry Patterson 217

Developing and Implementing Curriculum Innovation — Mary Jane Fogal 231

Effecting Change in the Distribution of Health Manpower — Ann Warner 249

Approaches to the Development of Leadership Skills and Strategies for Change — Ronald Harper 263

Putting Knowledge to Work — Don Frey 269

I. Patterns and Trends in Health Personnel

II. Relating Patterns and Trends to Public Law 93-641

III. Are There Solutions?

Small Group Reports — Group Leaders — 297

Appendix A

- Advisory Committee
- Conference Staff
- Conference Participants

Appendix B

- Handout Materials

BACKGROUND

THE PROGRAM

Monday, February 16

8:00 - 11:30 AM	Registration	
8:30 AM	Presiding:	Donald Johnson
	Welcome:	Wade Mountz
	Introduction of Speaker:	David Gale
	Topic:	"Current Health Issues in International Perspective"
	Speaker:	Ruth Roemer
10:30	*Refreshment Break*	
	Introduction of Speaker:	Marie Piekarski
	Topic:	"Leadership in Relation to National Health Legislation"
	Speaker:	Mary Allen Jolly
	Questions from the Audience	
12:15	*Lunch*	
1:30	Presiding:	Nancy Terry Bailey
	Introduction of Speaker:	Joan Stoddard
	Topic:	"Implementation of National Health Legislation"
	Speaker:	Juliette Lester
2:45	*Questions from the Audience*	
3:15 - 5:00	Concurrent Sessions: Report from the Congress	
6:00 - 7:00 PM	Social Hour	
8:00 PM	Tour	

Tuesday, February 17

8:00 - 11:00 AM		Registration	
8:30 AM		Presiding:	Doris Allen
		Announcements:	Don Johnson
		Introduction of Speaker:	Margaret Singleton
		Topic:	"Innovation and the Change Process"
		Speaker:	Carroll A. Gardner, Jr.
9:45		Panel:	"Roles and Responsibilities for Effecting Change"
		Moderator:	Nell Hall
		Panel Members:	Keith Johnson Arch Lugenbeel Kenneth Skaggs
10:45		*Refreshment Break*	
11:15		Introduction of Speaker:	Marion Franken
		Topic:	"In the Forefront of Change--Nonconventional Approaches to Diagnosis and Treatment"
		Speaker:	Evelyn Monahan
12:30		*Luncheon*	
1:30		Concurrent Sessions	
	Group 1	Presiding:	Pat Jamison
		Topic:	"Utilizing Information Storage and Retrieval Systems"
		Speaker:	Leslie Wykoff
	Group 2	Presiding:	Joan Birchenall
		Topic:	"The Faculty Member as Change Agent"
		Speaker:	Jerry Patterson
	Group 3	Presiding:	Owen Elder
		Topic:	"Developing and Implementing Curriculum Innovation"
		Speaker:	Mary Jane Fogal
	Group 4	Presiding:	Norma Jean Schira
		Topic:	"Effecting Change in the Distribution of Health Manpower"
		Speaker:	Ann Warner
	Group 5	Presiding:	Bonnie Lawson
		Topic:	"Approaches to the Development of Leadership Skills and Strategies for Change"
		Speaker:	Ronald Harper

Wednesday, February 18

8:30 AM	Presiding:	Bonnie Lawson
	Introduction of Speaker:	Nancy Bailey
	Topic:	"Planning as Process--An Essential Tool for the Leader in Allied Health and Nursing"
	Speaker:	Don Frey
	Refreshment Break	
	Small Groups Simulation Activity: "Using Change Strategies and the Planning Process to Deal with a 'Back Home' Problem"	
	Group Leaders:	Joan Stoddard Pat Jones Pat Jamison Joan Birchenall Owen Elder Jim Moore
	Lunch	
1:30	Presiding:	Don Johnson
	Group Reports	
	Reaction to Reports:	Don Frey
	Summary and Guidelines For Effective Planning:	Don Frey
3:30	*Adjournment*	

OVERVIEW

The purpose of the Leadership Conference was to provide an opportunity for health professionals to become more aware of certain elements of leadership, particularly those related to--

--Becoming a force for changing the system for delivery of health care through informed input to the policy-making levels;

--Identifying with the political processes of national, state and local communities;

--Developing communication channels for participating in decision-making and policy-formulation for the health care system.

It was expected that each participant, following the Leadership Conference would be able to fulfill a leadership role as a health professions educator; specifically, the participant would be able to--

(1) Explain current trends in the health field and discuss implications of these trends for health professions educational programs;

(2) Plan and implement a strategy for influencing the legislative process and/or policy-formulation for the health field;

(3) Plan and carry out a strategy for influencing development of the rules and regulations for implementation of federal statutes which affect the health system;

(4) Use a systematic planning process to deal with actual problems in the health professions and/or in health professions education;

(5) Make a critical analysis of a proposed plan of action, proposed policies and proposed statutes in terms of underlying purposes and potential effects on problems in the health field.

The design of the program focused on an informational base related to problems in the health field, the legislative process, the development of rules and regulations, and change as a reality in a dynamic and technologically oriented society.

Ruth Roemer, J.D., who spoke on the topic "Current Health Issues in International Perspective," is Researcher in Health Law in the School of Public Health, University of California, Los Angeles. She is currently engaged (with Milton I. Roemer, M.D.) in an international study of health manpower in four countries--Australia, Canada, Belgium and Norway. Mrs. Roemer is the author of about 40 monographs and articles in professional journals and is senior author of Planning Urban Health Services--from Jungle to System, published in 1975 by the Springer Publishing Company.

Mary Allen Jolly, currently Public Affairs Director for the American Home Economics Association, addressed the topic "Leadership in Relation to National Health Legislation." Mrs. Jolly has had extensive experience in working with the Congress as a congressional staff member and as Washington representative for several organizations.

Juliette N. Lester, Senior Advisory for Medical and Social Services in the Bureau of Occupational and Adult Education, spoke on the topic "Implementation of National Health Legislation." Mrs. Lester is responsible for determining the types of social and medical services existing in Bureau programs and for developing the data for planning the educational programs needed for these fields. Mrs. Lester came to the U.S. Office of Education in 1965 from Columbus, Ohio, where she was an administrator and instructor at Mt. Carmel Hospital School of Nursing.

"Innovation and the Change Agent" was the topic of Carroll A. Gardner, Jr. Dr. Gardner is Director of Special Programs for the Southern Regional Education Board. From 1970 to 1973, he was Special Assistant to the President, University of Virginia. Previously, Dr.

Gardner served as Assistant to the Dean, Medical School, University of Michigan.

Following Dr. Gardner's presentation, a panel discussion focused on the topic "Roles and Responsibilities for Effecting Change." Archie G. Lugenbeel spoke from the standpoint of a project director; he is currently Director of the Rural Allied Health Manpower Project. Kenneth G. Skaggs presented the viewpoint of a junior college administrator; Mr. Skaggs is Coordinator for Occupational Programs, American Association of Junior Colleges, Washington, D.C. Keith Johnson spoke from the standpoint of a vocational/technical school teacher; he is Chairman of Health Occupations Education, Athens Area Technical School, Athens, Georgia, and President of the Health Occupations Education Division of the Georgia Vocational Association.

Evelyn Monahan addressed the topic "In the Forefront of Change--Nonconventional Approaches to Diagnosis and Treatment." Dr. Monahan has taught at Emory University and Oglethorpe University and currently holds a faculty appointment at Georgia State University. She is the author of numerous publications; her most recent book is The Miracle of Metaphysical Healing.

These large group sessions were followed by a series of concurrent seminars on specific aspects of the change process and skills related to the leadership role.

"Utilizing Information Storage and Retrieval Systems" was the topic of Leslie Wykoff, Reference Retrieval Librarian at Northwest Regional Educational Laboratories in Portland, Oregon. Leslie is interested in the establishment of regional and national networks of resource materials and people.

Jerry Patterson spoke on the topic "The Faculty Member as Change Agent." He is Director, Center for Instructional Research and Development, School of Community and Allied Health Resources (SCAHR), University of Alabama in Birmingham. Jerry has recently completed "Teaching Strategies for Occupational Therapy Educators" to be published by the American Occupational Therapy Association. He has authored articles in Educational Forum, Training, Educational Technology and the Alabama Vocational Education Journal.

Mary Jane Fogal spoke on the topic "Developing and Implementing Curriculum Innovation." She is Director of Project SNAP (System for a Nursing Articulation Program) in New Mexico. Prior to her current position, Mary Jane was Director, Career Ladder Project for the McCurdy Schools and the New Mexico Department of Vocational Education. She holds a B.S.N.E. from Wilkes College and a Master's degree from the University of Pennsylvania.

Ann Warner addressed the topic "Approaches to the Development of Leadership Skills and Strategies for Change." She is currently serving as Director, Manpower Distribution Project, National Health Council.

Ronald Harper spoke on "Approaches to the Development of Leadership Skills and Strategies for Change." Mr. Harper is Director of Educational Services, Northwest Regional Educational Laboratories (NWREL). He has had extensive experience in the systems approach to planning, in development of planning models (state and local), and in development of models for leadership training and citizen participation in community affairs. His expertise in the teaching of process is used widely throughout the Northwest.

"Planning as Process--An Essential Tool for the Leader in Allied Health and Nursing" was the topic of Don Frey, who is Project Director, The Ohio Program for Dental Health Education in Schools, Metropolitan Health Planning Corporation, Cleveland. Mr. Frey has served as Director of the Manpower and Education Division, American Association of Comprehensive Health Planning and as Executive Director of the Health Careers Council of Illinois.

On the third day, participants were challenged to deal with specific problems. Don Frey presented a summary of the Conference presentations, with emphasis on the implications of each for utilizing an informed and rational approach to leadership. He then presented 12 problems based on current trends and current legislation. Small groups were assigned two problems each, with the challenge of applying learnings from the Conference to each problem. Group reports were presented during the final session of the Conference, with Mr. Frey reacting to each report and suggesting strategies for maximizing the "success" of proposed solutions.

It was hope that this information-acquisition/problem-solving sequence would enable participants to leave the Conference better qualified to become involved in problem identification, problem solving, policy formulation and legislative planning. According to the evaluations, most participants did leave the Conference feeling better prepared to fulfill a leadership role and to incorporate an orientation to legislation/policy formulation into their instructional programs.

PRESENTATIONS AND PANEL REACTIONS

CURRENT HEALTH LEGISLATIVE ISSUES IN INTERNATIONAL PERSPECTIVE

Ruth Roemer, J.D.

Researcher in Health Law
School of Public Health
University of California
Los Angeles, California 90024

It is a real pleasure to participate in this Leadership Conference for Health Professions Faculties and to have an opportunity to discuss with you some of the current legislative issues in health care.

INTRODUCTION

As teachers of future health professionals in nursing and the allied health professions, you are in a position to have an important influence on the shape of health services as they evolve in the United States in the coming years. We are on the eve of decisions at the federal and state levels of government that will be critical to the kind and quality of health care that the American people will have in the future. In that setting, your role as teachers may well encompass not only professional practice and technical skills in your various fields, but it may also include the broad subject of attitudes and ideas on basic matters of health policy. Students will look to their teachers for guidance, even though we sometimes doubt that. Perhaps because of the questioning and inquiring attitudes among students, you as teachers have a particular opportunity to alert your students to the need to implement two fundamental

---

This paper is based in part on studies supported by a research contract of the Health Resources Administration, U.S. Department of Health, Education and Welfare--N01-MI-34090 (P).

principles in our health care system: (1) rational use of expensive and scarce resources, and (2) equity in the delivery of health services.

Rational use of resources involves the question of how we as a nation use the $118 billion that we currently spend on health care during a year. How do we and how should we spend the 8.3 percent of our gross national product on health care? Rational use of resources refers not only to money but also to facilities of all kinds--hospitals, extended care facilities, clinics, doctors' offices--to facilities in both the public and private sectors because the consumer through his taxes, his insurance and his out-of-pocket expenditures finances facilities of all kinds. Rational use of resources also refers to the production and use of our most precious resource--health manpower--the more then four million men and women who make up the labor force that delivers health care. The "health service industry," as the U.S. Bureau of the Census calls it, is the third largest industry in the United States. Physicians, dentists and registered nurses comprise more than one million active persons; the allied health professions account for about two and one-half million (about 60% of the total number of designated health workers in 1967); and other supportive personnel make up the remainder.[1] Sound decisions concerning the supply, distribution, functions, education and regulation of the many different kinds of health personnel are likewise essential if we are to make rational use of this valuable resource.

The other overriding principle that must characterize a modern health care system is equity. Equity in health care may be defined as the provision of services in accordance with health needs, not in accordance with ability to pay or other factors unrelated to health status, such as occupation, sex or ethnic background. Inequities may be highly visible, as when a poor individual or family does not qualify for needed services under a publicly funded program. Inequities may be more subtle but no less harsh, as when residents of rural America or urban ghettos must rely on a physician-population ratio which is a fraction of the supply that serves attractive and suburban communities.

My intention today is to present to you an overview of current legislative issues in health care. Some issues concern legislation that has been passed and is in the process of being implemented. Other legislation is under debate in the Congress and still remains to be acted on. All these legislative issues are important for the character and quality of the American health care system.

In order to provide an additional dimension that may cast light on these issues, I propose to inject some perspectives from the experience of other countries. These comments are based largely on an international study of health manpower in four countries--Australia, Canada, Norway and Belgium--in which my husband, Dr. Milton Roemer, and I are examining questions related to health manpower in different health service and health insurance systems under a research contract with the Health Resources Administration of the Department of Health, Education and Welfare.

This presentation of current legislative issues is divided into four parts, each dealing with a basic feature of the health service system. In fact, these four parts are a useful framework for analyzing our own or any other health care system. They are:

(1) financing of health services,

(2) development of resources,

(3) organization of health services, and

(4) regulation of the quality and costs of health care.

Obviously, we are not going to cover the totality of issues under each of these four headings, but I'll attempt to select some major legislation in each category.

FINANCING OF HEALTH SERVICES

The issue of financing health services involves both use of resources and equity. The ways in which money is spent determine the efficiency of the system and how far our finite resources will stretch. At the same time, if one thinks of equity, the first thing that springs to mind concerns financial barriers to health care.

Voluntary Health Insurance

Actually, we have made great progress in the United States in covering the costs of health care through voluntary insurance. Increasing numbers of individuals and families have private health insurance, many of them through labor contracts negotiated by trade unions with employers. Although voluntary insurance coverage has risen steadily, in 1972, there were 38 million Americans under the age of 65 still without economic protection against hospital costs, and 43 million had no insurance for medical care costs.[2] Moreover, those who have insurance are typically covered for only a part of their care. While voluntary insurance pays most of the costs of hospitalization, it covers less than half the cost of physicians' services and only about six percent of the cost of drugs, dental services, nursing home care, visiting nurses and home care. Nor does voluntary insurance cover the high-risk groups. One of the reasons, as we know, for the enactment of Medicare by Congress in 1965 was the failure of the voluntary insurance industry to cover the aged, who had the highest risk of illness and the least earning capacity to pay for care. Poor and low-income workers are still not covered adequately by voluntary insurance. In 1971, only 36 percent of those under 65 with incomes under $3,000 a year had some coverage for hospitalization, as compared with 93 percent of those with incomes above $15,000.[3]

These deficiencies in voluntary insurance coverage and the rising costs of health care (each person's average health bill has gone from $78 annually to $441 in the period of 1950 to 1973[4]) have led to recognition of the need for a system of national health insurance to spread the costs of care over the total population and thus assure care for all. As I.S. Falk, a leading American authority on health insurance, points out:

> The consensus favoring group payment, or cost sharing, derives from the fact that the costs of medical care are not reliably manageable on an individual or family basis because of the uncertain and variable nature and the potential size of the costs for any particular family in relation to its private resources.[5]

Many of you probably saw the television program, "Don't Get Sick in America." ABC is now filming another one to be released at the end of April. The various proposals for national health insurance are a response to these problems of access to and the high cost of care.

Proposed Health Insurance Legislation

The 20-odd health insurance bills that have been introduced in the U.S. Congress can be divided into five main types. Let me give you a thumbnail sketch of each of these types.

(1) Voluntary Insurance with Governmental Subsidy. The insurance industry has proposed, essentially, a continuation of the present voluntary insurance system but with governmental subsidies to cover low-income and high-risk groups. This is the system that Australia had for many years in which individuals carried private insurance, and the government paid for pensioners and subsidized insurance benefits for all enrollees, with higher subsidy for the poor.

More than 40 years of experience with this system in Australia revealed that about 20 percent of the population was still not covered; many out-of-hospital services were not insured and had to be paid for privately; even for the medical and hospital services that were insured, benefits were not complete, and the patient still had the burden of considerable cost-sharing; and, finally, there were high administrative costs associated with 90 different voluntary insurance organizations that handled benefits under the program.[6] As a result of these deficiencies and after many commission reports and long public debate, the Australian Parliament voted in 1974 to abandon the system of subsidized voluntary insurance in favor of compulsory national health insurance covering the total population and administered through a single national fund. Although the Labor Government is no longer in power in Australia, every indication is that the new health insurance system, although it may be changed in some details, will not be reversed.

(2) Mandating Enrollment in Existing Plans. This approach (the Nixon proposal, embodied in the Bennett bill, and supported also by the American Hospital Association in its second version of Ameriplan) would require all employers to offer a basic insurance package to

their employees, but employees would have the right not to join. State governments would be required to contract with insurance carriers to cover low-income and high-risk people. Medicare would be continued for persons over 65. These plans would have substantial deductibles, would require co-payment by the patient, and would have limitations on dental care, drugs, psychiatric care, preventive care, eye care, nursing home care, and home health services.

The idea of both deductibles and co-payment is to make the patient bear part of the cost so that he won't "over utilize" the services. The facts, however, do not bear out this notion about "over utilization." First, it is not really the patient who "over utilizes" the system because every visit the patient makes, except the first one, is at the behest of the doctor. It is the doctor who tells the patient to return for another visit. Moreover, patients who seek initial contacts with doctors in new spells of illness must be suffering either physical or mental or emotional problems that stimulate these visits.

Secondly, all the evidence shows that an insurance scheme that requires co-payments or deductibles to discourage utilization really discriminates against low-income families or persons having costly illnesses. At the risk of being charged with bias, may I cite a study in California done by Milton Roemer and associates, published in the June, 1975 issue of Medical Care.[7] This was a study of the so-called "co-payment experiment" in California, in which a charge of $1 on certain Medicaid beneficiaries was imposed for the first two visits to a doctor and 50¢ for the first two drug prescriptions each month. Comparison of the "co-pay" and "no-pay" cohorts revealed short-term savings in lower ambulatory care costs because the co-pay group was discouraged from seeking care; but in the long run, hospitalization rates for the co-pay group rose to levels higher than that for the no-pay group which had no barriers imposed to seeking early ambulatory care--costing the state more in hospital bills than it had saved on doctor bills. The finding was that when ambulatory services are inhibited by a co-payment mechanism, a price is paid in the rise in relative rate of hospitalization, to say nothing of the adverse effects on the health of the group deterred from seeking care. In short, the study concluded that co-payment is "penny wise and pound foolish."

(3) Social Insurance for Limited Benefits. Four bills have been introduced to provide for a single national insurance fund on the same basis as Medicare but limiting benefits to catastrophic illness. Another proposal along these lines would limit coverage to children. These bills, which limit the amount of benefits or the class of beneficiary, are simply inadequate. Coverage of only catastrophic costs after the patient has paid the first $2,000 or $3,000 of costs will require co-insurance and be subject to all the disadvantages of our present fragmented and incomplete system. Limitation of coverage only to children is at variance with the whole concept of preventive and comprehensive care for the whole family.

(4) Social Insurance with Comprehensive Benefits. This type of comprehensive coverage is illustrated by the Kennedy Health Security bill and by the old Dingell bill, first introduced in Congress 30 years ago. This legislation would be financed through an employer-employee payroll tax, matched by general revenues. There would be a universal coverage of the total population and no deductibles or cost

sharing. Preventive care would be encouraged and fully covered. There would be strong incentives for reform of the health care system to provide for greater efficiency and effectiveness. There would be quality controls and administrative reviews built into the system, and there would be consumer participation at all levels of the administration. This legislation would abolish Medicare, most of Medicaid, and some 19 other governmental programs which provide personal health services and provide, in their stead, for universal, comprehensive health insurance for all U.S. residents regardless of age or income, with built-in cost and quality controls.

A common charge leveled against the Kennedy Health Security Program is that it would be too expensive--$100 billion. But, it should be emphasized that we are now spending more than $100 billion for health care--in fact, $118 billion, as mentioned. The Health Security Bill would be spending the same $100 billion that we are now spending but mainly through public rather than private channels, and therefore in a more efficient way. By financing all care--ambulatory as well as hospital care--the Health Security Program will encourage early, preventive care and provide incentives for establishing health maintenance organizations for comprehensive care of population groups. Moreover, this proposal would build in public accountability. It will be administered by a public agency within the Department of Health, Education and Welfare, with a five-member, full-time Health Security Board, appointed by the President. In the 10 regions and 100 sub-regions provided in the legislation, there will be advisory councils at all levels, with a majority of members representing consumers.

(5) Comprehensive National Health Service. A fifth proposal introduced by Congressman Dellums of California would provide for a national salaried health service supported out of general revenues. In my view, although this is a rational and equitable proposal, it is simply not politically realistic in the American setting.

Debate on national health insurance has been in progress in the United States for more than 30 years, but with only limited progress. Enactment has been delayed largely because of the opposition of the private medical profession.

In 1965, the clearly demonstrated needs of the elderly compelled enactment of Medicare, and it has become clear that doctors do not suffer under a universal payment mechanism; and certainly patients benefit. In fact, the American Medical Association has changed its position on health insurance and has moved from support of voluntary insurance with governmental subsidies to support of mandating enrollment in existing plans.

All other industrialized countries in the world have some form of national health insurance. In Canada, which is not only close to the United States geographically but similar in terms of health care patterns, compulsory hospitalization and physician's care insurance now blankets the entire population. While there are differences in the operation of the system among the ten Canadian provinces, everywhere there is great satisfaction.

None of the dire threats that were predicted materialized. Doctors did not leave the country; in fact, greater numbers came in, and more Canadians were admitted to medical schools. Medical incomes did not decline; they were already high and rose further. Doctors were not overworked; instead, there were more doctors, and their work week was shortened. The quality of medical care did not deteriorate; rather, with strengthened quality controls, the care improved.[8] If we heed the Canadian experience, we can anticipate that once comprehensive national health insurance is enacted in the United States, there will be not only financial coverage of the costs of care but a mechanism for making our system of health care more rational and equitable.

DEVELOPMENT OF RESOURCES

Central to any system of health care is development of manpower and facilities--the principle resources for providing health services. In this sphere we must take note of two major legislative efforts--the new National Health Planning and Resources Development Act, signed into law on January 4, 1975, as P.L. 93-641, and the health manpower education legislation currently pending in Congress.

National Health Planning and Resources Development Act

Before reviewing the provisions of the new National Health Planning and Resources Development legislation, it may be helpful to recall that the origins of this act can be traced to the Hill-Burton program, first enacted in 1946 after World War II. The Hill-Burton Hospital Survey and Construction Act provided federal grants for public and private construction of hospitals and other facilities on condition that there was a state "master plan" and certain standards were met. Designed to correct the shortage of hospital beds in rural areas and to improve facilities that had deteriorated during the depression and the war, the program impelled enactment of state licensing laws for hospitals, increased and equalized hospital bed supply, modernized many facilities and established the principle of organized planning of health facilities. Now that remarkable program is ended after 30 years of experience and is incorporated in new legislation.

Replacing the Hill-Burton program and also the more recent Regional Medical Programs of 1965, designed to improve the quality of care, and the Comprehensive Health Planning Program of 1966, designed to emphasize the planning of all facilities (not merely those aided by federal funds) is the National Health Planning and Resources Development Act of 1975. The purpose of this statute is to assist the development of a national health planning policy, to increase areawide and state planning for health services, manpower and facilities, and to authorize financial aid for development of resources. In enacting this sweeping legislation, Congress specified a number of national health priorities: primary care for medically underserved populations; development of medical group practices and health maintenance organizations; training and increased use of physician's assistants, especially nurse clinicians; improvement of the quality of care; adoption of uniform cost accounting and utilization reporting systems; and encouraging effective methods of prevention and public education.

The key administrative mechanism for carrying out the enormous tasks of planning and resource development are Health Systems Agencies, which are to be established in health service areas comprising 500,000 to 3,000,000 people. These HSAs will have a mixed planning and regulatory function. They will develop long-range plans and also carry out parts of plans, using their power to approve or disapprove grants and to allocate resources. They will perform the certificate-of-need functions for new health facilities. Under the Act, HSAs may be either voluntary, nonprofit agencies or governmental agencies; but in any event, 60 percent of the members of the governing body must be consumers of health care.

In my opinion, the HSA--if it is to be an effective planning and regulatory body--ought to be a governmental agency. Only in this way can full public accountability and maximum citizen participation be assured. This issue will arise in every state and region; and health leaders, in my opinion, should recognize the importance of working to have the elected representatives of the people in a governmental agency exercise the important functions assigned to HSAs under the legislation. In a mixed public-private health service system such as the American system is, placing ultimate responsibility on government is essential if the planning and regulatory processes are to be effective.

The importance of this legislation cannot be overestimated. It provides a mechanism for increased coordination and influence of federal funds; it strengthens regional planning and regulation of health services; it is a means for developing local programs in accordance with broad national priorities; and in providing for rate regulation for institutions and uniform cost accounting, it serves as preparation for a system of national health insurance. Perhaps most important is the direction of this legislation towards preventing wasteful duplication of health resources and developing facilities and services on a rational regional basis.

Health Manpower Legislation

Major legislation affecting development of health manpower is pending in Congress. Its significance is reflected in a rare showing of bi-partisan unity, for on December 5, 1975, the current administration's health manpower education legislation, the Health Professions Education Amendments of 1975, S 2748, was introduced in the Senate by Senator Edward Kennedy, Chairman of the Senate Committee on Labor and Public Welfare, with co-sponsors from both political parties.

Major issues in this legislation are three: (1) correcting geographic maldistribution of physicians and other health professionals; (2) achieving a more rational specialty distribution of physicians; and (3) changing our current overreliance on foreign medical graduates. Brief comments on each of these issues may be helpful.

Geographic Maldistribution. The geographic maldistribution of physicians and other health professionals among states and within regions of states is well known. A recent Congressional report states that the national ratio of physicians to population is 156 physicians to 100,000 population or one physician for every 641 people.[9] This supply might be adequate if the physicians were properly distributed over the country, but the New England and Pacific regions have 50 percent higher ratios of physicians than do the Midwestern and Southeastern regions. Kentucky has 107 physicians for every 100,000 people, or 69 percent of the national average; Georgia fares a little better with 117 per 100,000, or 75 percent of the national average. Within regions, the maldistribution is repeated, with rural and blighted city areas much more poorly supplied than suburban and attractive urban areas.

The present health manpower legislation, which offers graduates of medical, dental and veterinary schools forgiveness of loan payments in return for service in the National Health Service Corps or in under-served areas has not been successful in inducing large numbers of graduates to provide service in needy areas because high medical incomes enable practitioners to pay off their loans at the low interest required (three percent) without the need to give service.

Last year, the Senate passed legislation which required the medical schools to set aside 25 percent of their enrollment slots for students who would agree to go to medically under-served areas for two years. That bill generated a great deal of debate, but it did not pass both houses of Congress. In July of 1975, the House of Representatives passed a bill designed to result in voluntary movement of physicians to medically underserved areas. Scholarships for those who agree to serve in the National Health Service Corps would be increased, and service in the Corps would be made more attractive. Under this bill, also, capitation support to schools of medicine, osteopathy and dentistry would be granted on condition that enrollments are increased, that at least half the students receive at least six weeks' training in ambulatory care settings remote from the main teaching facilities (because such experience induces settlement in rural areas); and that the Area Health Education Centers (AHEC) Program for training health professionals, particularly doctors, in community hospitals be strengthened.

The Senate bill, with bi-partisan sponsorship, would extend capitation to the schools of medicine, osteopathy and dentistry but would condition this aid on the schools' reserving 15-25 percent of first-year places for students who agree to accept health service scholarships and serve in medically under-served areas on completion of their training, giving one year of paid service in these areas for each year of scholarship assistance. In addition, the schools would be required to establish an identifiable entity responsible for ensuring that all students receive a significant portion of their training in primary care. Also, the medical and osteopathic schools would agree to act to increase the proportion of the schools' direct or affiliated residency positions that are in family medicine, general pediatrics or general medicine. Schools of dentistry would also be required to increase their first-year enrollments.

In other countries, numerous strategies--generally incentives--have been developed for improving geographic accessibility of doctors and other personnel. These include regionalized planning of hospitals and health centers that make rural practice more attractive; salaried positions for rural doctors, like the district doctor in Norway who does both public health and private practice; mobile services like the Australian Royal Flying Doctor Service; and financial inducements to practice in rural areas.

Specialty Maldistribution. Geographic maldistribution is accentuated by specialty maldistribution, particularly the disproportionately low supply of doctors in general practice, family medicine and the primary care specialties, as compared with the medical and surgical sub-specialties. The United States has a smaller proportion of private medical practitioners in general practice--about 20 percent--than either Australia with 40 percent or Canada with more than 47 percent. If all physicians in the primary care specialties of general practice, internal medicine, pediatrics, and obstetrics and gynecology are included, then the United States has 47 percent in the primary care specialties, but the percentages in other countries would be correspondingly higher. The American Academy of Family Physicians recommends one family practitioner for every 2,500 persons, but only three states (Arizona, Iowa and Maine) meet this ratio.[10] Until recently, all indications were that this ratio of generalists to specialists was worsening, although the American Medical Association has announced that 58 percent of the 1974 medical graduates entered primary care specialties.

Some inkling of the seriousness of an excess number of surgeons in the United States is given in a paper by Dr. John Bunker of Stanford University published in the New England Journal of Medicine.[11] This paper indicates that there are twice as many surgeons in proportion to population in the United States as in England and Wales, and Americans receive twice as many operations. Although Dr. Bunker cautiously states that these facts alone do not compel the conclusion that American surgeons operate twice as often as is required, he suggests that it is reasonable to assume that the disproportionate number of surgeons results in some unnecessary surgery.

One mechanism that has been proposed for controlling specialty distribution is to limit the number of approved residency positions for training specialists, since the availability of unrestricted numbers of training posts proliferates the numbers of specialists. At present, the total number of postgraduate training positions is much greater than the total number of graduates of U.S. medical schools, and the distribution of specialties for which training is available is not in favor of the primary care specialties. One proposal is to limit the number of approved specialty training positions to 110 percent of the number of graduates of U.S. medical schools. A national council with 10 regional councils would set the number of residency positions to be certified each year, and health insurers would be prohibited from reimbursing hospitals for the cost of unapproved training positions. Other mechanisms are to strengthen the teaching of family medicine and to make the practice of family medicine more attractive and more remunerative.

In other countries, the system of using full-time salaried medical staff in hospitals, as in Norway, controls the number and distribution of specialists, for only those specialists can expect to practice for whom there will be appointments available in the hospitals. In countries with less rigorous medical staff organization, other methods are used. Higher training standards may be imposed, as in Canada, where all hospital residency training programs must be university affiliated, or as in Belgium, where the training extends over a particularly long period of time--customarily five to seven years. Canada is engaged, also, in a national planning effort to estimate the numbers of each kind of specialist required, based on current rates of service, on which information is available from the data bank of the national health insurance system.

Foreign Medical Graduates. The issue of foreign medical graduates constitutes a problem both for the United States and for the developing countries from which the majority of FMGs come. Approximately 20 percent of active physicians in the United States in 1970 were foreign medical graduates, and one-third of all interns and residents are FMGs.[12] Of all newly licensed physicians in 1972, 46 percent were FMGs. This large number--68,000 FMGs were on the AMA's registry in 1971--are desperately needed in their own countries. The FMG issue is a complex one, but it involves questions as to the competence and performance of foreign-trained doctors, for whom English is not a first language, as well as ethical questions of the United State's taking from less affluent countries doctors whom these countries have trained (at high social cost) and whom they need for service to their own people.

Foreign medical graduates should, of course, be permitted to enter the United States for training purposes. Some legislation proposes that for immigration, however, they should be required to pass Parts I and II of the examination of the National Board of Medical Examiners, demonstrate competence in oral and written English, and show that their admission does not lead to a surplus in a specialty or geographic area.

In Canada, a new policy is being adopted on immigration of foreign graduates, which had previously been allowed quite liberally. Now that Canada's supply of doctors is deemed adequate, FMGs will be permitted to practice only if they enter into contracts with provincial governments to locate in areas of doctor shortage until they attain citizenship (normally requiring five years). In this way, the new immigration policy will promote improved geographic distribution of doctors in Canada.

ORGANIZATION OF HEALTH SERVICES

In 1973, the U.S. Congress passed a law that promises to usher in a major innovation in the organization of health services and by its provisions promote the quality and restrain the costs of health care. The Health Maintenance Act of 1973 is designed to encourage an alternative to the existing fee-for-service system of medical care and, in the words of an authority on social security, make the delivery system responsible for efficient and effective use of health care resources to meet the needs of the people.[13]

Health Maintenance Organization is a new name for an old idea. A health maintenance organization is an entity that assumes responsibility for the total health care of a population in consideration of a fixed, prepaid amount of money. Thus, an HMO may be what was formerly called a prepaid group practice, or it may be organized along the lines of the medical foundation model, in which a number of doctors agree to provide services in their private offices to a defined population in accordance with fixed fees. The essential feature is that, because of the organization's undertaking responsibility for the total health care of the population, the costs of physician's and hospital care can be significantly reduced; doctors have a direct incentive to provide early care on an ambulatory basis, instead of expensive in-hospital care. HMOs are also economical and efficient because they have the capacity to utilize a wide range of allied and auxiliary personnel.

Experience with HMOs has shown that, with relatively higher use of ambulatory services than in conventional fee-for-service practice, the care is not only less expensive but more preventively oriented.[14] Moreover, studies of the population served by the New York Health Insurance Plan (HIP) (which is a health maintenance organization) compared with other New York populations matched by age, sex, and socio-economic status served by traditional private medicine, have shown better health outcomes (lower perinatal mortality and lower overall death rates in persons over 65) in the HIP population.

The 1973 HMO legislation authorized expenditure of $375 million over a five-year period to assist development of HMOs that meet certain standards of required and supportive services and certain organizational and financial responsibility requirements. These safeguards are important because, while in conventional fee-for-service practice there is a danger of over-servicing patients in order to earn more fees, in the HMO, because the doctor earns the same amount regardless of how much care the patient receives, there is a danger of under-servicing. We have had some unfortunate examples of the need for regulation of HMOs in California.

The standards set in the original act were quite rigorous, and it was found that some of these requirements, in fact, constituted barriers to the formation of HMOs. Accordingly, the House of Representatives has recently passed amendments to the HMO Act that would relax some of the requirements, particularly for supplementary services, without jeopardizing the quality of patient care. This legislation is before the Senate now. The HMO has been described as

> a quite clever and thoroughly American-style strategy for achieving the benefits of rational health care planning. The use of financial incentives and competition to gain economy and, hopefully, also quality is a classical free enterprise solution to the problem that most other nations have tackled through the establishment of relatively vigorous administrative controls over their medical care system.[15]

REGULATION OF THE QUALITY AND COSTS OF HEALTH CARE

The numerous mechanisms for regulating the quality and cost of health care are of different types. Some are legal mechanisms, such as licensing laws; others are voluntary, professional controls, such as certification of specialists or accreditation of hospitals; and still others are the organizational structures that have long prevailed in hospitals and that are being developed increasingly for ambulatory care, as in mental health clinics, outpatient departments of general hospitals, neighborhood health centers, and health maintenance organizations.

Here we may turn to three legislative issues that concern the quality and, to some extent, the costs of health care. Of course, it should be recognized that some of the issues already discussed involve regulation of quality and costs. For example, geographic distribution of personnel certainly affects quality of care; health maintenance organizations affect both quality and costs; and a comprehensive system of national health insurance would have a wide impact on both quality and costs if properly designed. The three issues that I propose to discuss briefly in this connection are (1) professional standards review organizations, (2) the malpractice insurance crisis, and (3) new developments in licensure of health personnel.

Professional Standards Review Organizations

In the effort to create a mechanism for peer review of the quality of medical care provided in hospitals and nursing homes to beneficiaries of Medicare, Medicaid and child health programs, Congress provided, in the 1972 Amendments to the Social Security Act, for the establishment of a peer review mechanism called Professional Standards Review Organizations (PSRO). PSROs are voluntary, nonprofit organizations to which licensed, practicing doctors of medicine and osteopathy in the local area may belong. PSROs are required to include a substantial proportion--at least 25 percent--of the local physicians as members in order to be qualified to enter into an agreement with the Department of Health, Education and Welfare for reimbursement of the costs incurred in operating the PSRO.

The role of the PSRO is to be responsible for assuring that health care paid for under federal programs is medically necessary and consistent with professionally recognized standards of care. It will also determine whether care is provided at a level that is most economical and in accord with the patient's medical needs. PSROs are required to review care provided in institutions, but they may be approved for review of non-institutional care in certain areas. Although the statute limits the jurisdiction of PSROs to the care provided to patients in federally funded programs, clearly the activities of the PSRO with respect to such patients in a hospital will inevitably affect the quality of care provided to all patients in that hospital.

The essential idea of PSROs is that they will establish a system whereby hospitals, physicians and PSRO bodies will cooperate to develop and operate a quality assurance system based on peer review and continuing education. The review will encompass the necessity of hospital admissions, the appropriateness of hospital stays, and the effectiveness of discharge planning. There will also be review of the care provided by non-physician practitioners in institutions conducted by their peers. In the process of this review, existing mechanisms for surveillance of practice, such as hospital issue committees, will be utilized, of course. In addition to the on-going system of review, the statute provides for more general medical care evaluation studies.

Implementation of PSRO legislation has been slower than expected, but 203 PSRO service areas have been defined by the federal government. A detailed program manual has been developed and is being used. About 80 of the 203 PSRO service areas have a conditional contract, and in another 20-odd areas there are planning contracts. The effective date for operation of PSROs has been extended from January, 1976, to January, 1978. When Professional Standards Review Organizations are fully operational, they should certainly provide for scrutiny of standards of care in hospitals, they should assist the correction of habitually poor care, and they may even contribute to reduction in malpractice suits.

While PSROs have generated considerable resistance in the United States from the medical professions, accounting in part for the delay in implementation, peer review in Canada is proceeding as a concomitant of the nation-wide health insurance system. From the information on medical practice yielded by the computerized data system used for paying doctors and hospitals, physician profiles are developed. A physician profile is a statistical outline of the total services rendered by a physician, the patients he has seen, and the monies paid him during a specified time. Physicians are grouped, according to specialty and community size, into a homogenous class for purposes of comparison. Thus, a physician's performance can be readily examined in comparison with the performance of others in his specialty and geographic area. If a physician is found to be over-servicing or under-servicing or engaged in some improper deviant behavior, the matter may be investigated by the provincial health insurance commission or referred for action to the licensing agency or the professional association. In most provinces, the health insurance commission has passed responsibility for patterns of practice back to the professions, and this procedure has been well accepted.

Malpractice Insurance Crisis

Medical malpractice suits are also a form of "regulation of quality" of care, since they are a means of redressing wrongs to patients and providing compensation for injuries. The recent medical malpractice insurance crisis, occasioned by steep increases in the rates for premiums, has brought into sharp public focus not only the present tort system of handling malpractice suits but other issues related to the cost of health care and the need for strengthened surveillance of medical service, particularly in hospitals, where most cases of malpractice occur.

Several facts about the malpractice insurance crisis should be noted. First, the federal Commission on Medical Malpractice, reporting to the Secretary of Health, Education and Welfare in 1973, found that only a tiny percentage of medical services (less than one percent) ever leads to malpractice actions. Yet a high proportion of these actions is taken against a small percentage of all the doctors working in hospitals. This suggests that the development of PSROs and strengthened powers of licensing boards to review performance of doctors would be important.

Secondly, the spiralling costs of medical care and the gaps in insurance coverage have made the public angry with doctors. If there is an untoward result in a medical procedure, even without negligence on the part of the doctor, the patient is impelled to bring suite because he has to meet further high costs of medical care. This suggests that a system of national health insurance in which all costs of care are covered would tend to reduce the incidence of malpractice actions.

Third, studies have shown that only 17 percent of the premiums paid for malpractice insurance go to claimants, and 83 percent goes for administration, legal fees or insurance company profits. This suggests that the high insurance premiums paid by doctors are not due mainly to awards to claimants.

Most of the states that have enacted legislation on this issue have been concerned with shortening the statute of limitations--the time within which suits can be brought--or limiting the damages allowable for pain and suffering, or setting limits on contingency fees for lawyers. In New York State, however, a commission that examined the whole matter has recommended a different approach--replacement of the current tort system with a system of social insurance. Under such an approach, the risk would be spread over all the doctors who would initially pay a uniform premium. Later, merit rating would be applied, and those doctors who were shown to have poor performance would pay a higher rate. An administrative tribunal with medical experts and lawyers would investigate and adjudicate claims, with appropriate appeals procedures. Patients who suffered injuries--whether or not the doctor was negligent--would be compensated, as under a disability insurance program. Legislation along these lines has been introduced in Congress by Senator Kennedy of Massachusetts and Senator Inouye of Hawaii (S.B. 215), and a similar approach has been suggested at the state level.

Neither Australia nor Canada has a significant incidence of malpractice cases nor any type of malpractice insurance crisis. Premiums in both countries are about $100 a year, compared with $2,000 to $50,000 in the United States. Several factors may account for this difference. In both countries, contingency fees for lawyers are either illegal or unethical. Cases are decided solely by judges without a jury. In Canada, the Medical Defense Fund, to which all doctors belong for an annual membership fee of $100, defends every meritorious case, no matter how minor; the custom of settling small claims to avoid the nuisance of litigation is not followed. But, most important of all, both Australia and Canada have a national insurance system that covers virtually all health care costs. In both countries, there is high patient satisfaction with the health care system.

Licensure of Health Personnel

One of the deficiencies of state licensing laws is that licensure has been concerned only with initial qualifications for practice and fails to provide surveillance of the licensee's continuing competence. The grounds for disciplinary actions specified in state medical practice acts and licensing laws governing other professions have generally been extremely limited. They have been largely restricted to cases of incompetence by reason of alcoholism, drug addiction, or mental illness or disqualification by reason of conviction of a crime. Although most statutes also provide for disciplinary action for unprofessional conduct, the traditional reluctance of doctors to criticize their colleagues has resulted in very few such charges being brought.

Of 320,000 licensed doctors in the United States, it has been estimated by Dr. Robert C. Derbyshire, chairman of the New Mexico Board of Medical Examiners, and Dr. Roger O. Egeberg of the U.S. Department of Health, Education and Welfare, that about 16,000 are incompetent or unfit to practice. But in each of the years from 1971 to 1974, on the average, only 72 medical licenses were revoked.[16] And for unprofessional conduct, fewer than 10 licenses were revoked in each year in all 50 states.

This "cover up," if you will excuse the expression, is beginning to change. Some state legislatures have amended their licensing laws to strengthen surveillance of performance, and some require evidence of continuing education as a condition for re-licensure. Arizona is one of the states that requires doctors to report incompetent colleagues and grants immunity to the reporting doctor. When this law became effective, the reporting of unfit doctors quadrupled. In Indiana and Washington, new licensing laws make incompetence a ground for revocation of licenses. The Indiana law requires the Board to investigate malpractice cases also. In California, the Board of Medical Examiners has been renamed the Board of Medical Quality Assurance and has been granted expanded authority to review the quality of medical practice, to gather statistics and information (including the names of doctors whose malpractice insurance has been terminated), and to establish continuing education requirements.

In several Canadian provinces, the registration laws, which are the equivalent of our licensing laws, have been strengthened to provide increased surveillance of medical practice on an on-going basis. The Province of Quebec has enacted a new Professional Code, under which "professional corporations" have been created to regulate practice. The Corporation of Physicians sends out teams of experts throughout the province to review the performance of doctors in hospitals. The team investigates a sample of cases in each of a number of categories, reviews charts, discusses cases with the medical staff, and--if some deficiency is found--the practitioner involved can be required to leave practice and take two or three months' training in the field in which he is deficient. No doctor has refused to cooperate, because the Corporation holds the power to revoke his right to practice.

In the United States, strengthening of the medical practice acts is long overdue. In a health care system with private, solo practitioners, many of them working in multiple hospitals, some of which are private, proprietary facilities, improved surveillance is essential. But, at the same time, it should be recognized that the issue is not only to catch the repeated bad actors--those who tie off the same wrong blood vessel in three gall bladder patients, causing their deaths--but the issue is rather, as Dr. Avedis Donabedian of the University of Michigan School of Public Health has said,

> "to create a situation where the majority of doctors are encouraged and not discouraged from doing better work."[17]

CONCLUSION

And that is where we started this morning at the opening of the conference: with the need to create a more rational and more equitable system of health care. May I say in closing that you, as teachers of our future health professionals, have a great opportunity and challenge to play an important role in bringing about a more rational and more equitable system of health care for the American people.

Thank you.

NOTE: The following represents the essence of audience comments following Ruth Roemer's presentation.

Roemer Forty percent of doctors in Australia and 47% in Canada are generalists, compared with 20% in the U.S. For many years, the number of doctors has been kept down in the United States. It was only because the federal government decided to increase it--even gave loans, grants and money for construction--that the medical schools had to increase their enrollments. They even started taking in numbers of women and minorities as well. I'm just wondering whether it isn't perpetuating and accentuating second-class medicine to use alternative personnel for the rural areas and for the urban ghettos. Some of us are decidedly in favor of nurse practitioners, physician's assistants, and of changing the Medical Practice Act to open up the possibility of delegating health care--provided we don't do this only for the poor. Where are physician's assistants being employed? Are they working in the Beverly Hills private offices with doctors? No, they are not.

Audience Yes, they are. However, the rewards are the same when they go that route as they are to the physician. I don't know how to deal with that phenomenon. For example, opthalmologists can earn much more than people who are in family medicine or in pediatrics, so the aides who are employed by opthalmologists earn more than those who work in family medicine. It is not a compromise of quality. One measure of any professional, whether a professional housekeeper or a professional physician, is to respect the limits of one's own ability and one's own knowledge. To presume that all nurse practitioners or all PAs or all physicians who identify themselves as professionals are full of virtue is a fallacy. There will obviously be people who are not professional, even though they carry the responsibility and are being paid that way. Studies from the mid-50's have demonstrated that the management of chronic heart disease by nurse practitioners is clinically more effective and more cost effective. Now, that doesn't say that the physician isn't capable of doing the same thing. He is. But, the community invests substantial capital resources in generating every physician manpower unit. It's expensive to get a nurse manpower unit, but it isn't anywhere nearly as expensive as generating a physician manpower unit.

Audience If the nurse practitioner can do as good a job as the physician, why shouldn't she be paid as much as the physician?

Roemer Let's hold that one for just a minute because I want to point out to you that the study cited was a study of a mass sample of chronically ill patients who had been examined and whose treatment had been prescribed by a physician. Those who were cared for by the very experienced nurses who had a very good result and those who were cared for by the young interns in residence--all had been examined by a doctor. That's the distinction I'm raising with you. Shouldn't everybody have that differential diagnosis made by a physician, or at least by a nurse practitioner who is in close team practice with a physician?

Audience Maybe that would be nice, but it's going to be a long, long time before people have the privilege of that kind of service. It is not economically realistic. What's happening to finance in medical education is already horrendous. You can look at good examples of where physician practice should be limited; and most physicians do respect their limits--but not all. Get on with the business of giving the care--the need is there. I think we're hung up on our own professional identities; we feel threatened by going about the business of doing something that works. We've equated length of education with quality of service. Now, one of the interesting things you say is that a nurse practitioner program ought to be at least 12 months in length, but it doesn't address criteria for student selection. Length can be a function of student selection criteria--what kind of work experience, what personality factors the student brings to a study. At the University of California at Davis, a curriculum started out as a Master's curriculum for nurse practitioners on a pilot basis. They selected associate degree graduates and diploma graduates. Everyone received academic credit, so that if people who go through the curriculum have a Bachelor's, they get a Master's; if they have a diploma, they get credit toward a baccalaureate; if they have an associate degree, they get a baccalaureate. So they all come out, and there is no statistically significant difference in the way those people perform in the training program. Personality factors determine how well they function and how responsibly they function as nurse practitioners. We talk about educated people being prepared to have open minds. I propose that a number of our institutions of higher education have, in fact, conditioned us to close our minds to reality.

Audience There are just a couple of things I'd like to say. They are philosophical responses, but I have to verbalize them because I'm getting very agitated sitting here and listening. One of the things I'd like to comment on is not so much professional identity, but rather professional snobbery. In the health care system, we have solved some problems and created a whole bunch of new ones because of a lack of a futuristic approach. We're not really responding to problems that we're facing. We're reacting; we're like jackrabbits; we run from one thing to another, to another, to another, in a kind of fragmented, almost frenzied activity to find right answers to a multitude of problems. And it's not happening. We're not looking to the future and saying, "OK, if we do this, what will be the ramifications of our actions?" There's a book by Marlene Kramer called Reality Shock which speaks to the issue that this gentleman also discussed. We are educating students to be unrealistic about what's going to happen when they work in a hospital. Consequently, when they get out there, they don't function well because they haven't been prepared. And it's due to our own professional snobbery.

The devisiveness in the health care profession is an absolute obscenity--the "you're-stepping-on-my-turf" type of thing. What are we doing? We're treating a patient, an individual, a whole patient; and the holistic approach should be used. We're not doing that. We're fragmenting education, we're fragmenting philosophy. Consequently, all of us are sitting here saying, "Where the hell are we going?" What's happening to that patient in the meantime? What's happening to that health consumer? I'm beginning to feel some type of moral obligation. I feel myself caught up in this whirlpool of activity. I have to do something, but I'm not quite sure what to do. It's like the man who gets lost in a car. He just keeps going faster and faster; and when he gets there, he doesn't know where he is, but he made good time. I think that's what we're doing. I find it very distressing. I'm not finding any answers, and I'm getting more and more concerned.

Audience One of the basic problems is that the health care system is not a system at all. There is no system. And if it were a system, there would be an array of components designed to interrelate. Now, when you begin to identify what those components should be and how they would interrelate, you find that one of the great problems is the perpetuation and institutionalization of professionalism. We must clarify what the components of primary care and health education are all about, and how they relate to secondary care and how that relates to tertiary care and how that relates to the regionalization of the program.

Roemer That was a marvelous statement, and I agree with it 150%. I worked for four years on a study of categorical programs (largely governmental programs and only incidentally programs in the private sector) for specific diseases, for specific beneficiaries (children, adults, Indians, the poor) and for specific purposes (mental illness or something of that sort). And after I got all through with this and did inventories at the federal, state, regional and local levels of all of these programs, I was overcome with the massiveness of the system. I call it a system, but it's a very poor, disjointed, categorical system. I think we have a system, but the interrelation between the public and private sectors is very poor. It's hard to make it operate well enough to provide the comprehensive care that the previous speaker spoke about. But when I got all through, I thought, "Well, I've got to find some answers somewhere." I went to look in other countries, particularly in Sweden and in countries that had developed regionalized systems. And I saw that, really, the only answer for us is a regionalized system.

Audience But don't you think a lot of that is culturally dictated? My understanding is that, as a nation, we are much more homogeneous. They don't deal with some of the same characteristics that we have to deal with--for instance, geographic barriers to service. It functions for their culture; that doesn't depreciate from its value one whit. It seems to me that what we're hung up on is trying to standardize too much for a nation that I think is characterized by a remarkable and a rich pluralism. I think we need more pluralism in the way in which we address needs, not standards. I think the reason we've become confused and frustrated is over-simplification of how standards can serve us. We've gotten ourselves in a box; we find ourselves serving the standards, rather than the standards serving the people who need the service. That's why we have to look for alternatives for addressing the needs, because of technological advances, because of knowledge explosion, and because we have to provide much more service. Our attitudes are the principle barriers to better use of the resources we have.

Audience I quite agree with you. Eight million Swedes who have been 100% literate for over a century, with a minority problem of a quarter of a million people who are kept in an outdoor museum up in Lapland, is not the same situation we face. I hope (and I'm already beginning to get some ideas) I'm going to get good solutions out of this. I think with our attempt now at regionalization and the possibility of diversity within those regions which we already have, what we want to do is enhance the ability of those regions to do what they're doing better than they're now doing it.

Roemer Are there any other issues that anyone would like to talk about?

Audience You know, in the Armed Forces, they are training physician's assistants to go into remote areas, and not only the physician's assistants but the technicians who are trained strictly in the need-to-know, not necessarily the nice-to-know. They may learn to deliver a baby and to run a urine test and take X-rays--very specific things that they need to use out in a very remote area; but then, they do have communication with physicians, but these are areas where they have to perform. I wonder how this affects our other governmental agencies.

Roemer Well, there certainly are examples of these well-trained people. One example in Canada is the out-post nurse who works in the far north; these nurses have done remarkable work, but they're very highly trained.

Audience I want to offer a point of information about two studies that were funded by the National Science Foundation and conducted in the summer of 1974. They were published in the fall and winter of 1974, but they remain the two principle comprehensive studies on physician's assistants and nurse practitioners. One was done by Inter-Study* in

---

*Inter-Study, 123 East Grant Street, Minneapolis, MN 55403.

Minneapolis. The other study is by the Yale School of Medicine.* The principle investigator on that study was Dr. Eva D. Cohen. She's a Ph.D. in public health--she's not an M.D. The fascinating thing that came out of those two studies was a win-win situation all around--that both concepts have an inordinate amount of validity and that, after they get through the introductory phase, physicians who work with nurse practitioners and physician's assistants wonder how they ever functioned in a practice without them. The principle resistance is not from patients; it is from people who are dealing with the concept in the abstract. I think, in terms of change theory and change process, that's probably just as well. The process comes about so slowly and is so strenuously challenged that it makes certain that we preserve those values which we want to preserve--namely, quality and effectiveness. I think if you are interested in pursuing that particularly dimension at all, I would suggest that you get those two studies.

Audience I challenge the gentleman's statement that this doesn't affect the patient, or that they don't object to it. I'm from the coal fields of eastern Kentucky. We have Appalachian funds and manpower funds; we have every kind of funds that can be given and every type of health worker. The whole objection from the patient is, "I wish I had a doctor of my own." They don't like the fragmentation. They want somebody who'll stop preaching politics, and we don't get down to it.

---

*"An Evaluation of Policy-Related Research on New and Expanded Roles of Health Workers." $2.00 prepaid. Office of Regional Activities and Continuing Education. Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510.

Roemer I think it's a question of job analysis. What tasks must be done by a physician? What tasks can be delegated? Now, the only limitation on that, as I see it, is that even the most competent physician can't do eight hours a day of super diagnostic tests. At some point, he has to do something routine to relax. I would allow him to do some routine functions that perhaps could be done by somebody else. But I think it really comes down to job analysis. What tasks can be done by nurse anesthetists? By nurse midwives? By nurse clinicians in hospitals? By intensive care nurses? By nurses in coronary care units? And what kind of training is needed by each? A further protection, it seems to me, is team practice. We all preach it, but we don't practice it. You can use all kinds of allied and auxiliary personnel, even personnel trained at the secondary school level, provided it's a team situation where there is supervision. Now, I maintain that supervision is one of the hardest jobs to be done and one of the hardest jobs to be taught in health services. How do you teach someone to give good supervision and to know when a task is within the competence of a person with minimal training? We need the fullest and most imaginative use of allied and auxiliary personnel. I think we haven't begun to tap that in the dental field. It has been proven very well that dentists perform many functions which expanded-duty auxiliaries can perform. But there are some things that must be reserved for the highly trained professional.

Audience I'm working with the American Academy of Pediatrics, and they did a study and very openly said 80% of the functions of the pediatric practice can be done by other members of the team. They moved on to professional pediatric nurse practitioners and pediatric assistants and what each could be doing. In our particular medical school, they are training them and working with them in a team relationship; and it's been very successful.

Roemer Are there any of you who have had experience with an HMO? I feel HMOs offer a very hopeful vision for the future. It hasn't really developed as fast as I thought it would. What has been your experience? It's a systems approach that fully uses allied and auxiliary personnel in ways that we don't do it in the traditional medical practice. A study was recently done in California of Kaiser and four other systems of health care. It showed that Kaiser rated higher on all counts, including patient satisfaction. I'm a member of Kaiser; and I must say that 15 years ago when I joined, there was a lot of irritation with the clerical personnel and some of the technicians. In these 15 years, I've noticed that they must have improved their in-service training enormously because that whole aspect of the operation is much more efficient and much more considerate.

NOTES

1. Maryland Y. Pennell, "Measuring the Supply of Health Manpower," *Health Manpower, United States - 1965-1967*, PHS Pub. No. 1000, Series 14, No. 1, U.S. Dept. of Health, Education and Welfare, 1968. See also *Health Resources Statistics, Health Manpower and Health Facilities, 1971*, U.S. Dept. of Health, Education and Welfare, February, 1972.

2. Marjorie Smith Mueller, "Private Health Insurance in 1972: Health Care Services, Enrollment and Finances," *Social Security Bulletin*, pp. 20-40 at 20-21, March, 1974.

3. *Age Patterns in Medical Care, Illness and Disability, U.S. 1968-1969*, Pub. (HSM) 72-1026, Vital and Health Statistics, Series 10, No. 70, p. 17, U.S. Dept. of Health, Education and Welfare, April, 1972.

4. *National Health Insurance Resource Book*, prepared by the staff of the Committee on Ways and Means, House of Representatives, p. 8, April 11, 1974.

5. I. S. Falk, "National Health Insurance: A Review of Policies and Proposals," *Law and Contemporary Problems, Health Care, Part II*, Vol. XXXV, No. 4, p. 669, Autumn, 1970.

6. See Ruth Roemer, J.D. and Milton I. Roemer, M.D., *Health Manpower in the Changing Australian Health Services Scene*, DHEW Pub. (HRA) 7658, pp. 67, U.S. Department of Health, Education and Welfare, Health Resources Administration, Bureau of Health Manpower, Division of Medicine, 1976.

7. Milton I. Roemer, M.D., Carl E. Hopkins, Ph.D., Lockwood Carr, B.S., and Foline Gartside, M.A., "Copayments for Ambulatory Care: Penny-Wise and Pound-Foolish," *Medical Care*, Vol. 13, No. 6, p. 457 at 465, June, 1975.

8. Milton I. Roemer and Ruth Roemer, *Health Manpower Policies in the Federated Health Care System of Canada* (publication pending by U.S. Dept. of Health, Education and Welfare, Health Resources Administration, Bureau of Health Manpower, Division of Medicine).

9. *Health Manpower Act of 1975*, Report by the Committee on Interstate and Foreign Commerce, together with Opposing, Separate and Supplemental Views, Report No. 94266, House of Representatives, 94th Cong., 1st Sess., p. 22, 1975.

10. *Ibid.*, at p. 39.

11. John P. Bunker, M.D., "A Comparison of Operations and Surgeons in the United States and in England and Wales," *New Eng. Journal of Medicine*, Vol. 282, No. 3, p. 135, Jan. 15, 1970.

12. Betty A. Lockett, Ph.D. and Kathleen N. Williams, M.A., Foreign Medical Graduates and Physician Manpower in the United States, DHEW Pub. No. (HRA) 74-30, pp. 3-4, U.S. Department of Health, Education and Welfare, February, 1974.

13. Marjorie Smith Mueller, "Health Maintenance Organization Act of 1973," Social Security Bulletin, March, 1974.

14. See Milton I. Roemer and William Shonick, "HMO Performance: The Recent Evidence," Health and Society, pp. 271-317, Summer, 1973.

15. Milton I. Roemer, M.D., "Can Prepaid Care Succeed," Prism, p. 13, April, 1974.

16. Information from the Federation of State Medical Boards, contained in the New York Times, pp. 1, 24, January 29, 1976.

17. Quoted in New York Times, January 29, 1976, supra note 16.

LEADERSHIP IN RELATION TO NATIONAL HEALTH LEGISLATION

Mary Allen Jolly

Director of Public Affairs
American Home Economics Association
2010 Massachusetts Avenue, N.W.
Washington, D.C. 20036

I am not an expert in health. I hope I am here because of my knowledge and experience in legislation and government, primarily in the field of education.

Some of you may recall a cartoon which has appeared in the comics. It shows a bus careening down the road with heads and faces sticking out of all the windows. It is perfectly obvious that the bus is overfilled to its capacity. The one voice that is seen in the picture is someone shouting, "Is anybody driving?" The answer, of course, is that no one is driving.

That cartoon describes somewhat my feeling in coming to grips with the topic I am to address at this time, that of leadership in relation to health legislation. I am not speaking of national health legislation as a specific proposal, but as a general one. The health delivery system of this country is indeed a complex one; and if one assesses the political structure, i.e., the economic impact of that system, it approximates more than $100 billion a year. Indeed, the federal budget alone just presented by the President to the Congress late last March calls for outlays of approximately $34 billion for health. This is five times as much as is budgeted for education, and eight times more than for social services. Health ranks second in expenditures of the Department of Health, Education and Welfare, exceeded only by social security payments, euphemistically cited in the budget as "Income Assistance."

In my work with two professional associations over the last ten years, I have often been invited to conferences and seminars to teach the legislative process; to tell how things happen in Washington; to give ten easy steps to success in the legislative arena. No one, of course, can do that; but I still like to try! Over the years, I think I have learned to be somewhat practical and am content to settle for less. I have also discovered that one cannot design a course, i.e., "Practical Politics 101," and expect to have participants come out as finished legislative leaders. To be truthful, the political/legislative arena (like other areas where one tries to predict human behavior) is one where there are no simple answers.

There is a truism about politics: "Politics is a field where action is one long second best, and where the choice constantly lies between two blunders." So, taking that truism as an operational description of what this speech is all about, I am here as one who, as my husband often says, is frequently in error but never in doubt!

Given the time constraints, the complexity of the health delivery system of which you are a part, and the differing vantage points from which we all come, I have but one major objective for this session; namely, to help you assess your leadership role in at least three dimensions:

1. As a part of our nation's health delivery system,
2. As educators in a variety of educational settings and institutions, and
3. As educational leaders with an opportunity to effect change

through participation in political processes, for that is the bottom line--the essence of what we are all about. Our political structures give us a process through which change can occur--usually in peace, but not always!

As an active participant in the political arena for twenty years, I have seen change occur through orderly processes and have had a hand in helping to bring it about. It has never been easy, but it has always been possible if there are those who are willing to pay the cost; and that is what leadership is all about.

Now, let us consider briefly each of these three dimensions that constitute your leadership roles. If you expect to make a difference in the health of the people of this nation, I believe you have to understand something of how these dimensions influence your leadership role. I am putting all of these into the context of influencing public policies.

Health Delivery

It is not my intention here to describe the scope, impact, or quality of the nation's health care. Nor is it my purpose to define all the problems that exist. You and others at this conference know these better than I. But I do want to talk about the health delivery system in terms of some overall trends that seem to me to hold some significance for health educators.

Health care--and the high cost we pay for it--will certainly be a major political issue in this Presidential election year. There are several versions of national health insurance now before the Congress, and others may yet surface. It is almost a given that we will have national health insurance or health service in some form in the not-too-distant future. Hopefully, it will bring some coherence to an important area of our national life, an area that is now a fragmented system, inflexible, not available in many places and underutilized in others, and always at a financial and social cost that is continuing to climb.

We live in an age of consumerism. This means that the "closed system" where the doctor is unchallenged, where medical practices have been unquestioned, where costs have been quietly and patiently borne (pun intended), will no longer hold. Many aspects of health care can be easily understood and acted upon by citizen groups. Certainly, a great role for health educators should be in the education of consumers. You can help to demystify our medical/health system.

Much of our health care in recent years has been provided in an institutional setting on the theory that comprehensive services could be provided most economically. We now know that this is not the case, and we are moving toward de-institutionalization. This means that we must develop community and family resources that become the extended care-givers. This has many implications for the ways in which we educate our health professionals.

We are coming to the realization politically that we do not have the resources for providing all the social, health, and educational services that professionals would prescribe if there were unlimited resources. Thus, in health, as in other fields, we must learn that "protecting our turf" is not possible if we are to meet the varying needs of people. For we also know that just as there are limits to our ability to pay, there are also limits to our ability to produce results--that is, we don't really have all the answers, the technical knowledge, the sure cure. Thus, we are learning that the problems of people do not occur in isolation. A health problem may be a nutrition problem or a housing problem which may be an income/employment problem, or it may be all of these with each feeding upon the other. Legislators are looking, and I believe listening, to those groups who can help them to understand the trade-offs. What are the implications of full employment for the health delivery system? Where do we put the dollars?

I attended a meeting in Washington a few days ago sponsored by the National Council of Organizations for Children. This is a group of 108 national organizations that have a concern about various kinds of programs affecting the welfare of children. That conference dealt with income maintenance/income transfers, health and day care. At the end, there was a summary period. I summed up what the conference had said about day care, an economist summed up what the conference had said about income maintenance, and a pediatrician summed up what had been said about health. When the doctor spoke, he said to us who had preceded him, "Everything you've said has to do with health. I can't think of anything about day care that doesn't have some implications for health." And so that conference ended with only one resolution: essentially, that if you really want to help children, you ought to be concerned about unemployment in this country. I think that the political realities will force many professional groups to be interdisciplinary. That means, simply, that we will have to give up some of our turf.

The issue of block grants for health was again presented in this year's budget proposals of the President. He is proposing to combine some sixteen separate and categorical health planning, construction and service delivery programs into a single block grant to the states totaling $10 billion.

At a briefing session on the budget, HEW Secretary Matthews spoke of this consolidation plan as "our new coalition with Governors." Apparently, he believes that there is a new capacity, and a new commitment, on the part of States to deliver health and social services--and President Ford's budget proceeds to build on this philosophy.

The history of States in this regard is anything but reassuring. Take the example of general revenue sharing. In the first five years of general revenue sharing, $30 billion has been allocated. Less than ten percent was spent for social services. It was used predominantly to reduce local taxes or to prevent tax increases. There has also been a lack of opportunity for significant citizen oversight of these expenditures.

In mid-January, a House Subcommittee issued a report detailing unnecessary surgery that was reimbursed in 1974 under Medicare and Medicaid (both fee-for-service systems, but operated at least in the case of Medicaid, by the fifty states.) The Subcommittee report revealed 2.4 million unnecessary surgeries were performed at a cost of $4 billion and 11,900 deaths.

In commenting on these facts, Dr. Arden Miller, School of Public Health at the University of North Carolina, said that "doctors, good and bad, as well as their patients, are victimized by a corruptive, profiteering system of medical care." He went on to point out that the billions saved from unnecessary surgery would go a long way toward paying the cost of a national health service that emphasized comprehensive and preventive care.

"The President has proposed, but Congress will dispose." My own belief is that the block grant concept--the idea of revenue sharing--is simply not as palatable to the Congress as it was four years ago. Apart from the basic questions of integrity and good administration, what most of us have learned is that the words "block grants" really mean "fewer Federal dollars." While the theory may sound good, it's the dollars that count; and whatever euphemistic term is employed, it generally means "less than we had last year."

Now, a couple of points about your roles as educators--the process whereby you prepare personnel to teach and/or to work in the health system. First, I believe health educators must play a more forceful role in determining standards for educating health professionals and paraprofessionals. We certainly must involve the medical/health profession in analyzing the skills that are a requisite for the various health care givers--or jobs--but the process for attaining those skills should be the domain of the educator.

Let me illustrate my point. I once visited a vocational technical center in a state which shall remain nameless. In their practical nursing course, the teacher student ratio was eight to one. How do you justify that as an education administrator? I was told that I was asked there to visit--not to make trouble! Furthermore, there was no evidence of impact of class size on learning. This instance could be multiplied in many aspects of medical and health education. One college president has expressed the belief that medical education (to become a doctor) requires more patience (persistence) than brilliance.

I believe as educators, wherever you are, that you should assume major responsibility for setting the standards for education. If we are serious about accountability, we can afford to do no less. In Washington, D.C. medical schools, tuition may go to $10,000 a year. Teaching hospitals charge $171 a day, and other hospitals charge over $100 a day. It is time to challenge this education process.

A second issue for you as health educators has to do with sexism. While it is true that sex discrimination was not invented by health educators, it nevertheless is an issue that is especially pertinent, for our society is one in which the low-paying jobs are traditionally reserved for women; and it is also a fact of life that many of the paraprofessionals who work in health and medical settings are among the lowest paid workers. Health educators must assume some special responsibility for assisting women in understanding the health career ladders that may be open to them through education and training. It also seems to me that education for occupational competency should include education for "occupational citizenship." How do I improve my wages through education? How do I move in the system? How do I negotiate better wages (labor unions, if you will)? If a labor intensive health care system is vital to the Nation, then it seems tc me that the pay to those workers must be more equitable, particularly in view of the earnings of those who occupy the top of the pyramid.

What are you doing in health education to help women attain this occupational citizenship? Is that a proper role of health educators? I believe so!

And finally, a brief overview of your role and your potential for effecting change through the political/legislative process. I think you have a significant role to play as public policy educators. You may be asking, "How do I take on this job? Can I afford to be controversial? How do I get involved?"

Now, if you will look at the hand-out* "A Model for Public Policy Decisions," I'd like to explain this model. Remember, I have characterized you as public policy educators, as well as health educators. This model for decision making was developed by Dr. Flinchbaugh, as noted on the front on this page. Anyone here from the State of Kansas may know about him, because he's done a lot of educating about public policy in that state. He says that a public policy educator should understand that there are really only two ways to decide public policy questions: an absolute dictatorship, or political compromise. In this country, what we are all about is a system for political compromise. That's what political decision making is. He further points out that controversial public policy problems defy scientific solutions. There are no "right" or "wrong" answers to any public problem. That's another way of saying that every question has two sides. In my own field of trying to help the home economists in this area, I'm constantly amazed at how these highly specialized people can disagree over what the scientific knowledge is really saying about nutrition. We can argue for just so long; then, at some point, we have to compromise differences. That's how we make progress and move ahead.

---

*See pages 79-82.

Early in my political life, I had an experience that has always stayed with me. I was quite young when I went to Washington. My first assignment for this Alabama Congressman was to go to the Judiciary Committee and listen to the testimony of a gentleman from New York (a man named Leskowicz, who was the Attorney General at that time) discuss the question of voting rights. I had been sent to that meeting with specific instructions from my Congressman about the political realities of living in Alabama in 1955. He said, as a Congressman from that state, "I'm voting against that issue. I have made the political decision that I'm not going to support it. Your job is to write me a statement saying why I don't support the bill." So, he sent me to hear Leskowicz to figure out why he didn't support it. I tell you--that was an amazing experience for me. The Attorney General gave a very detailed description of the discrimination that existed in my own home state. He even knew about my county; and deep down in my heart, I knew that he was telling the truth. So, I rushed back upstairs and said, "Oh, Mr. Elliott, I have to see you immediately. This is very important." And he said, "What do you need to see me about?" And I said, "You've got this thing all wrong. You can't vote against that bill." And then I began to tell him the reasons why. He said, "Now, Mary, just wait a minute. It's time you learned something. I've made a political decision as to how I'm going to vote. Your job is to find me a set of equally compelling reasons to be against the bill." And you know, that was an interesting exercise. I found that one could do it. I must admit that I was not as eloquent as the Attorney General, but I lived through that experience. This is typical of how legislators have to deal with public policy questions. As I said in the beginning, there are no right answers, and it's constantly a choice between two blunders.

Now, I would call to your attention the next part of this model, shown in Figure 2, entitled "The Basis for Public Policy Decisions." Three phenomena are always generated around any public problem. One is a set of facts. Every public policy question has a set of facts. This morning, I wished that I could take Mrs. Roemer's speech down in toto because she was eloquent in presenting a set of facts about many legislative aspects of the health care system. I think she also helped on the second point of this model--that is, to dispel the myths and propaganda that are always generated around any public policy question. People who oppose a point of view or maybe have a different value system can generate a set of myths and propaganda about any public policy question. The third component of this decision making is a value system. All groups who are trying to influence the system and those who have the power to vote--all have a set of values, and each one is different. Flinchbaugh says that public policy educators have a major responsibility to take those first two steps--you have a responsibility to look at facts, and you have a responsibility to use facts to dispel myths and propaganda. You cannot take the final step, which is to say, "I think all of you ought to do thus and so," if you maintain the role of an educator. If you are an advocate, you can adopt that value system without violating anyone else's rights. In a democracy, there is a legitimate role for advocacy. In the end, what you get from this set of phenomena will be a public decision.

Flinchbaugh illustrated it by talking about the tax question in the State of Kansas. He said that if taxes weren't raised, there would not be enough revenue to support the state. So the question is, "What do we tax? How do we tax?" Everybody came up with an answer for that. There was one group who said, "We can have enough money to run the State of Kansas if we would just tax liquor, and that's all we need to do. Let's put a tax on liquor." So Flinchbaugh goes to work with counsel, and he says, "OK, if you do that to raise sufficient taxes for the State of Kansas, a fifth of Seagram's Seven would sell for $45.96." He then concluded that this idea really won't give Kansas the tax base. So, it was necessary to seek other solutions.

Do you see what the model is and how it can fit into any aspect of the health delivery system? You have to have facts. You have to be able to distinguish between myths, propaganda and facts. And then, you have to let others use their value systems in making a judgment. Next, Flinchbaugh talks about some basic approaches to public policy issues;* on the final page, he tries to say schematically that there is a hierarchy for public policy decision making.* It looks something like this. At the top of the pyramid are the king-makers. Quite often, he says, people who are invisible, who are not known, do keep in touch with the kings and are very influential and very powerful. He then identifies a set of people that he calls kings. These are the people who are highly visible--

---

*See Figures 3 and 4 on pages 81-82.

legislators, for example, city council, board members, the hospital board. All of these people are highly visible. They have power, and they are known to people. And then, in every situation, there is a group which he calls "the actives." This would be the group that is reasonably well informed, knows a little bit about what's happening and how things happen, and participates in community life and political life. Then, there are interested citizens. These people may read the newspaper and look at television and perhaps are registered to vote. And then, at the bottom of the pyramid, are the apathetic citizens. These are the people whose attention you get if you put a four-lane highway right through their livingroom. Then, they rise to the occasion.

The point is, there is a critical mass involved in political decision making in a democracy. He identifies that critical mass as being the kings and the actives. What happens is this: if the kings pull enough of the king-makers, and if the actives pull enough of the interested citizens, then you get consensus, or a majority. That's what a democracy is based on. Lyndon Johnson used to say that the only thing you have to know to be a good politician is a little arithmetic. The arithmetic consists of this: take any even number, divide it by two, and add one. If you can do that, you understand how political decisions are made.

Next, I would call to your attention the hand-out* entitled "Selected Congressional Committees, Federal Agencies and Non-Governmental Agencies in the Area of Health." All three of these, in terms of the Washington scene, are important to public policy decision making. I often tell people that the executive branch of the government constitutes the biggest lobby in Washington. They mostly go unnoticed by others; but if you added all of the executive agencies together, they constitute a very powerful lobby for various kinds of programs. Certainly, this is true in the health field. The first one or two pages of this hand-out detail some of those governmental agencies. Then, following that, is a list of committees and people on committees who are in the Congressional make-up. The Congress has a division of labor which is called the Committee System. In the House, there are about eighteen full committees; in the Senate, I think there are twenty-three committees. These are broken down into subcommittees. There are more than 300 subcommittees in both the House and the Senate. The average member of the House of Representatives serves on about three subcommittees. The average Senator serves on about seven subcommittees. This gives you some idea about how this division of labor actually works. For example, a member of Congress would most likely become expert in the three areas where he has committee assignments. The poor Senators have to be expert in seven areas.

---

*See Appendix B, pages 1-6.

The Committee System has its advantages. If you look at the complexity of any problem that the Congress deals with, there are not enough hours in the day to learn all that one would like to know before casting a critical vote. I would encourage you to look at these committees. You'll notice that both the House and the Senate are listed, and there are two major committees that deal with health. But, that is not all. For example, I have not listed the Education and Labor Committee, which does, in fact, deal with some health legislation. When I was there years ago, it passed the practical nursing program, which could have gone through any of the health committees, but came to the Education and Labor Committee. I listed mainly the Finance Committee and the Ways and Means Committee--they both have major responsibility for health, primarily those proposals which have tax mechanisms or funding mechanisms attached to them. The committees on interstate and foreign commerce deal with the broad spectrum of health. In some cases, there's no compatibility between the kinds of committees in the House and those in the Senate that deal with health. For example, instead of the Senate having an Interstate and Foreign Commerce Committee similar to the House committee, those kinds of bills go to Senator Edward Kennedy in the Education and Labor Committee. There's a lot of turf guarding in the Congress. Although this division of labor is necessary and works, there are political jealousies about "who does what" within the Congress. If you find that your state is represented on some of these committees, I would encourage you to know more about them and about what their concerns are regarding the health delivery system. That's part of what you need to know about public policy decision making if you intend to be active.

The last part of this list has to do with naming some kinds of health organizations that do education and/or lobbying in the city of Washington, and who oftentimes have very good information in relation to health questions.*

The third hand-out* that I would call to your attention is the Health Legislation Agenda of the 94th Congress. About 2000 bills concerned with health have been introduced in this session of Congress. I have listed the ones I thought would be of major interest to you. As for the political implications, or the action implications, for what you do as health educators, you'll have to deal with the questions, "What is my most significant contribution to the public policy debate? On which of these issues should I focus--health care? Education? Planning? Manpower resources? What can I do, as a health educator, to have an influence on legislation?" I would submit to you that you can't do it all. The question is, "What is central to you as a professional group?" Maybe this hand-out will help you come to grips with whether or not these are the questions you think you can have some influence upon.

---

*See Appendix B, pages 4 and 8-11.

There are some terms that may be new to you. "Hearings" is a term that's used for action steps, or what the next action might be. That's the educational process for Congress. That's how they hold their seminars. Instead of coming to meetings like this, they call witnesses in to Washington; and they learn about what's going on through the hearings process. The term "mark-up" means that they've completed the hearings process. They take a bill that has been the subject of hearings, or they have written a bill as a result of hearings, and they go through it line-by-line. When they want to change something, they literally "mark it up" with a pencil, or they write amendments. We used to think of all kinds of ways to get our legislation passed. One way is to make certain that the front part of your bill is clear, because Congressmen are sometimes like your students--their attention span is good when they first start, but the longer they deal with it and the more complicated it gets, the more quickly they make decisions. They will argue for hours about whether to call it one word or another. One of the things we have always tried to do in mark-up sessions was to be certain that everybody was on board for the first two or three pages of the bill.

The final hand-out* is a bibliography of selected Washington health newsletters, to which I give credit to the Health Policies Center of the Graduate School at Georgetown. I think one of the big problems is, "How do you get enough information to your people so that they are informed, up-to-date, and know the substance of issues?" A cardinal rule in dealing with legislators is that you have to know what you're talking about. A well-documented, objective, well-prepared case is the best and most effective lobbying tool that I know of. If you really are going to be serious about action in the health field, you're going to have to be informed. You're going to have to make some decisions about which of these resources you read.

I want to mention one other kind of political action step that I would encourage you to think about as health educators. That is what we call coalition politics. You simply have to know how coalitions function, and you really have to be a part of one if you're going to make progress in the political arena. What is a coalition? Well, it's simply other groups who can share with you in accomplishing legislative goals. Believe it or not, you sometimes find in Washington that the AFL-CIO and the Chamber of Commerce are on the same side, from which comes the expression "politics makes strange bedfellows." That's the secret of getting consensus and moving ahead. I think the outstanding example of coalition politics, particularly in the field of education, has been the Committee for Full Funding. Do you know about that committee? This group of education organizations (most all of them Washington-based, but some state-based) got together and said, "We have a plethora of education legislation that is not funded at the level at which it is authorized. We ought to get together as a group and say to the Congress, 'We want full funding of education programs'."

---

*See Appendix B, pages 13-16.

Now, you have to remember that two political processes go on in the Congress. One is called the authorizing process; the other is called the appropriations process. The authorizing process looks at merit, and the appropriations process says, "How little money can we spend?" Those are the two basic questions that they deal with.

So, we agreed as a group of education organizations that we would handle authorization questions through usual channels, but also that we wanted full funding of education programs. The success of the coalition can be demonstrated by the fact that we have overridden three Presidential vetos of education legislation. Next, Congress pulled out the education appropriation and separated it from the Labor-HEW appropriation. It then became a matter of looking at education appropriations, and all the political arguments that go on in the health and welfare field did not bog down the education bill. That's a very significant achievement. There is a health coalition, as you will see listed in this group of organizations. I believe that it started about the time that the education coalition got together.

Conclusion

My years in Washington have engaged me in a variety of positions from which I have worked for legislation--primarily in the field of education. I have been lobbied by others as a congressional and committee staffer, and I have lobbied other congressmen and their staffs both individually and through coalitions. I have often asked myself the question, "Why do some people succeed in their efforts while others fail?" To answer that question, I have tried to identify the characteristics of those who succeeded. I have tried to answer the question, "What kind of leadership style makes for success in shaping public policy legislation?" In my opinion, these are the qualities that have made the difference:

1. A successful leader has a good understanding of where he/she comes from--it is a question of understanding what motivates you. Why are you a health educator instead of an English teacher? Is it purely happenstance, or is there a more basic reason? What is your own personal commitment to this professional area? You cannot hope to be a good leader if you cannot articulate a set of reasons for what constitutes your professional commitment.
2. A good leader must possess the courage to make moral decisions about issues that are in the public policy or legislative arena. Not many of us like to make these kinds of decisions. We prefer to operate on some other level. More often than not, we decide not to decide because we don't have the courage to really face the issue.

3. A successful and effective leader must be willing to question assumptions, to take risks, to lay it all on the line for what you believe. More often than not, we tend to take the easier path of defending what is without opening ourselves to other points of view; but I believe a successful leader in legislation must do just that.
4. A successful leader must develop the ability to communicate with a wide range of publics, including legislators. You must learn to involve others in goal setting and know how to keep them working together to achieve goals. That's called communication.
5. Finally, a successful leader must believe that political action is significant in your professional endeavors, i.e., that it is important to the nation's health care. Instead of merely reacting or responding to things as they are, the political arena offers us an avenue for "making things be as they should be." It is a process for bringing about change.

We live in a time when it appears to be a very popular thing to do for politicians to condemn government, especially the Federal government. It is apparently good politics to castigate bureaucrats and to suggest that we would all be better off if they and their briefcases and peanut butter sandwiches were tossed in the Potomac. Apparently, there is a loss of faith in our government, in our ability to manage it, in its capacity to deliver. But with all the problems and constraints, it appears to me that legislative bodies are responsive and responsible, particularly the U.S. Congress. There have been major reforms in the Congress which have opened up the system. Let me point to a few of these reforms:

1. New procedures to assure fiscal accountability. The Congressional Budget and Impoundment Act of 1974 is an effort by Congress to get better control of Federal spending. There are two political processes in the Congress: the authorization process (which deals with the merits of a piece of legislation) and the appropriations process (which [illegible] how little money we can spend). The Congressional Budget Office is a counterpart to the President's Office of Management and Budget and oversees both of these processes.
2. Dramatic change in who constitutes legislative bodies. One-man, one-vote decision is helping to bring this about. There are now more women, more blacks and other minorities, and more young people in the U.S. Congress. The last Congressional election saw the average age in Congress decrease by about 20 years, from 65 to 45.
3. Other procedural reforms include: the sunshine laws to open up committees; the seniority system has been challenged and changed (committee chairmen are now elected in caucus); electronic voting machines have been installed in the House of Representatives (this has cut the time necessary for voting in half); information retrieval and processing in the Library of Congress with computer terminals in offices; and increased size of legislative staffs (this is also a trend in state legislatures).

4. Citizen involvement and participation is a new political phenomenon. Every group wants a piece of the action. One Congressional staffer was quoted as saying that "all of a sudden, every group in town has a new government relations man--groups that never before took a stand for or against legislation."

Conclusion

We have looked at your three-dimensional role as health educators: your part in the health delivery system, as educators and as leaders in legislation. We have had a brief look at political processes and structures and have identified characteristics of successful leaders in the legislative arena--it is a question of both style and substance.

I hope I have challenged you to view the legislative arena as one where you can effect change in our health care system.

PUBLIC POLICY DECISIONS*

1. ABSOLUTE DICTATORSHIP
2. POLITICAL COMPROMISE

ALL CONTROVERSIAL PUBLIC POLICY PROBLEMS DEFY SCIENTIFIC SOLUTION. THERE ARE NO "RIGHT" OR "WRONG" ANSWERS TO ANY PUBLIC PROBLEM.

---

*A model developed by Dr. B. L. Flinchbaugh, Cooperative Extension Service, Kansas State University, November 1974

Figure 1

BASIS FOR PUBLIC POLICY DECISIONS

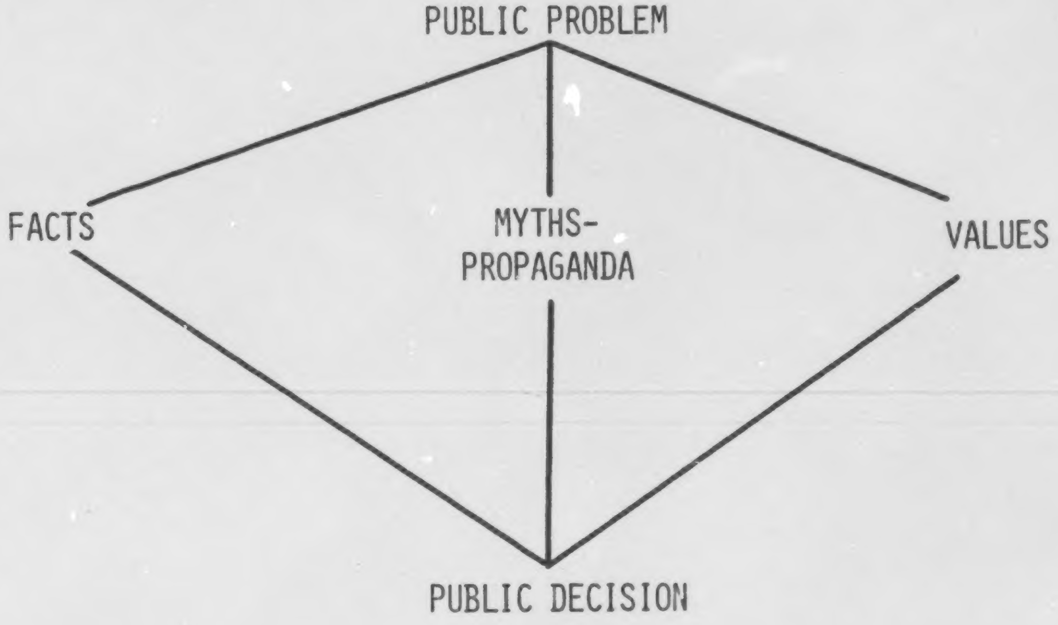

PUBLIC PROBLEM
FACTS
MYTHS-
PROPAGANDA
VALUES
PUBLIC DECISION

Figure 2

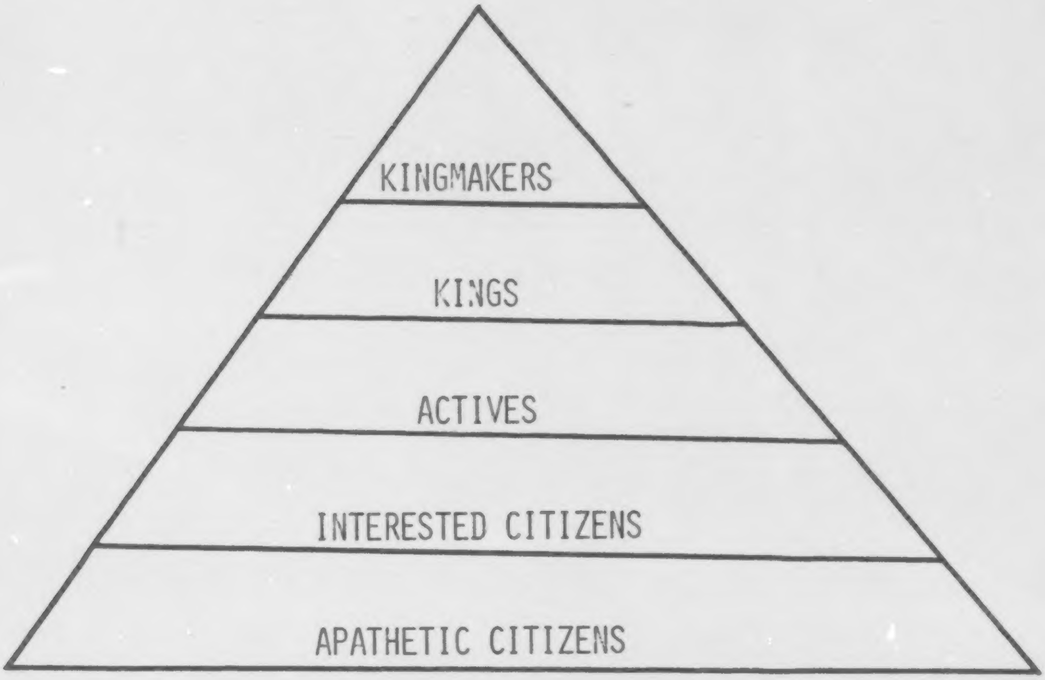
FOUR BASIC APPROACHES TO PUBLIC POLICY ISSUES

1) SCIENTIFIC - ESTABLISH CRITERIA FOR JUDGING ALTERNATIVE SOLUTIONS
2) EVANGELISTIC - BRAINWASHING AND DICTATION
3) ANALYTICAL - EVALUATE " PROS" AND "CONS" OF EACH SOLUTION TO PROBLEM
4) EDUCATIONAL - DEFINE PROBLEM....NOT SYMPTOMS
   IDENTIFY EVERY POSSIBLE ALTERNATIVE AND THE PROBABLE CONSEQUENCES OF EACH

EDUCATIONAL APPROACH - BASED ON OBJECTIVITY AND FAITH IN THE INFINITE WISDOM OF PEOPLE

Figure 3

HIERARCHY FOR PUBLIC POLICY DECISION-MAKING


KINGMAKERS
KINGS
ACTIVES
INTERESTED CITIZENS
APATHETIC CITIZENS

KINGMAKERS - FINANCIAL AND INTELLECTUAL RESOURCES
KINGS - HOLD PUBLIC OFFICE; VISIBLE; REPORT TO KINGMAKERS
ACTIVES - JOINERS; CIVIC-MINDED
INTERESTED - READ NEWSPAPERS; WATCH TV; NOT VERY VOCAL
APATHETIC - GET THEIR ATTENTION WHEN PERSONALLY AFFRONTED
CRITICAL MASS - KINGS AND ACTIVES

Figure 4

LAWS INTO RULES:
DEVELOPMENT OF THE FEDERAL REGISTER SYSTEM OF PUBLICATION

Juliette Noone Lester

Senior Advisor for Social and Medical Services
Bureau of Occupational and Adult Education
U.S. Office of Education
Department of Health, Education, and Welfare
Washington, D.C. 20202

Introduction

It is a pleasure to have the opportunity to speak to this group of health occupations faculty and administrators about the subject of implementation of Federal laws.

Current health issues have been identified, and the process for shaping issues into health legislation has been described. The subject of implementation of legislation is, therefore, a logical next step in this sequence of theory into practice.

For your Leadership Conference, I am addressing my remarks to the process of Federal rule-making, precisely placing these questions before you: (1) how do you discover what laws the Federal government is implementing with rules and regulations, and (2) how can you become a part of the process or of the system of implementation of laws into rules and regulations.

It is now forty years since the enactment of the Federal Register Act in 1935; and in our complex legal society, some form of governmental rule and regulation affects all of us. For this reason, I believe that the visibility of the Federal rule-making process is long overdue, although awareness of Federal rules and regulations is increasing.

Federal rule-making is part of that vast field of law known as Administrative Law, law which is derived from State and Federal Constitutions, statutes, common law, and the rules and regulations of administrative agencies. In this paper, I intend to focus attention on the dynamics which created the Federal rule-making process for rules and regulations by tracing the origin and development of the Federal Register system of publication. We will review, first, its early and recent history; second, the organizational and administrative process for rule-making; third, some recent reform efforts; and fourth, selected health and education issues which reflect Executive actions when laws become rules.

Helpful to the understanding of rule-making are several further issues which would be useful for administrators and teachers alike to study: (1) the experience by specific agencies and departments in the use of this institutionalized medium in implementation of public policy, especially the evaluation of agencies' rules for complying with the Federal rule-making process; (2) the extent to which draftsmanship of legislative bills and executive rules is influenced by your professional organizations' responses, particularly reviewing the typical stage of intervention for the interest group or organization; and (3) a review of selected States' efforts for publicizing and codifying administrative regulations.

Compared to the states (where administrative regulations and decisions are often difficult to locate) and to the local level of government (where published regulations are virtually nonexistent) the Federal Government has developed essential standards for administrative agencies' contributions to the promulgation of public policy.

The translation of legislative policy into rules and regulations by administrative agencies has been rather uneven, possibly because certain public issues inherently suggest difficulties in the process of "executive legislation." One needs to distinguish between types of Executive agencies (e.g., regulatory and non-regulatory) and differences in procedures therein for Federal rule-making. Our priority here, however, is to advance the recognition and identification of Federal rules with Federal laws; and we will not be discussing those agencies which are primarily regulatory in nature.

In acquainting you with the process, I am also speaking to you as teachers--teachers of students who need to learn formally and informally about the process of implementation of laws. Students of today are the leaders of tomorrow in their professional organizations; and their understanding of the use of the procedures for the development of rules and regulations is, I believe, a critical responsibility of the professionals--instructors and administrators--in Allied Health and Nursing.

Therefore, I would urge you to have your students as aware of the Federal Register as the Congressional Record, as concerned and as knowledgeable about the implementation of laws in Federal agencies as the drafting of bills and their process in Congressional Committees. More specifically, if students have researched various Senate and House bills in health and education in the current Congress, why not have them give equal attention to proposed regulations related to procedures and criteria for titles of Acts of particular interest; e.g., in the National Health Planning and

Resources Development Act of 1974 (P.L. 93-641), which became law on January 4, 1975.

Origin of the Federal Register and the Code of Federal Regulations

The setting in 1934 and 1935 prior to the passage of the Federal Register Act represented a classic mobilization of forces in our political system to control the Federal bureaucracy. Some would argue that the Act, by itself, had self-evident merits: establishing a system that recognized the theory that a man is entitled to know the law before he can be punished for disobeying it. The system which has emerged, however, I believe to have other significant consequences for the implementation, i.e., completion of public policy.

Support for H.R. 6323, a Bill for publication of governmental rules and regulations, came from different, yet related spheres of influence; for example, Erwin Griswold;[1] who was widely quoted in the Committee on the Judiciary's Report which accompanied H.R. 6323.[2] Griswold called for better publication of legislative rule-making by the executive branch and reinforced his plea by the suggestion of an act which was accordingly used as reference by the sponsor of H.R. 6323, Mr. Emanual Celler.*

Further corroboration came from the organized bar. A 1934 report by a Committee of the American Bar Association suggested that a system of publication be established. The American Bar Association had this to say to the subject:

> The practice of filing Executive orders with the Department of State is not uniformly or regularly followed, and the totals are really greater than above indicated. Some orders are retained or buried in the files of the Government department, some are confidential and are not published, and the practice as to printing and publication of orders is not uniform. Some orders are made known and available

---

*See page 102.

> rather promptly after their approval; the publication of others may be delayed a month or more, with consequent confusion in numbering. The comparatively large number of recent orders which incorporate provisions purporting to impose criminal penalties by way of fine and imprisonment for violation is without numerical precedent in the history of the Government.[3]

Also, in 1934 the Executive Committee of the National Emergency Council issued a report calling for a publication referred to as the "Federal Register." With such reinforcement and encouragement, Mr. Celler referred to his bill as a solution to the chaos and disorder concerning statutory rules and regulations.[4]

Seemingly less well-known or less influential in 1934 as evidence for or against the proposal was the Brookings Institution's contribution. Although not cited in the general history of this subject, Frederick Blachly and Miriam Oatman argued for organization of administration legislation, writing as follows in Administrative Legislation and Adjudication:

> To do away with the present confused situation, it is suggested:
>
> A. That Congress itself shall establish a broad and general basis upon which such legislation may rest.
>
> B. That rules and regulations be classified in accordance with their effect.....
>
> C. That all rules and regulations which further implement the law,.....shall be issued by the President, even though they originate in a government department, agency, or service. The President should have the help of a special bureau or board for this function.....
>
> D. That there shall be established an Official Gazette which will publish, as soon as possible.....all rules and regulations,.....[5]

The real genesis of the Federal Register Act may have emerged from reactions within the Supreme Court. In 1934, there were two important cases on the docket of the Court (which came to be known as as the "Hot Oil" cases) concerned with Administrative Regulations issued by the Oil Administrator. One case, having reached the Court, was dismissed on the motion of the Solicitor General when it was discovered that the regulation involved had been altered.[6] The case was *Panama Refining Company v. Ryan*, and the "Hip Pocket Law" incident occurred during the oral argument of the case. The second so-called "Hot Oil" case was *United States v. Smith* in which no opinion whatever was rendered by the Court. Actually, the *Smith* case was really disposed of during the oral argument of the *Panama Refining Company* case, when the Government was forced to admit that the "Regulations" upon which the Government depended in both cases had already been withdrawn and were no longer in effect.[7] The Oil Administrator, in this case the Secretary of the Interior, had issued "Regulations" without "Constitutional authority." Administrative law scholars Jaffe and Nathanson refer to the Supreme Court's refusal to treat the Code as properly before it, observing that "those who heard and participated in the argument were struck by the almost gleeful eagerness with which the Court probed into the unsavory story (though it had previously been completely advised.)"[8]

Simultaneously, massive amounts of administrative rulings and regulations were forthcoming from President Roosevelt's New Deal Administration. President Roosevelt was reluctant to have such a publication as the Register, fearful that a government newspaper might result. One had existed during World War I in the President's view; although, in fact, the Federal Government had only published an *Official Bulletin* for publication of war acts and related items. The

Bulletin, nonetheless, had received criticism for functioning like a government newspaper.

But the discovery that the Government was in ignorance of its own laws led to renewed pleas for a remedy. Surveys of the general problem indicated that "the President alone had issued 674 executive orders aggregating approximately 1,400 pages in the first fifteen months after March 4, 1933; and in the first year of the National Recovery Administration, 2,988 orders were issued, together with numerous regulations, which could be found only after a search through 5,991 press releases issued over the same period."[9]

Whatever the impetus--noted legal scholar (Erwin Griswold), organized interest group (American Bar Association), Congressional oversight (Committee on the Judiciary of the House), or the "Hot Oil" cases (Supreme Court opinion)--the combination of forces was sufficient to secure passage of a bill to control "Executive legislating."

Provisions of the Federal Register Act and the Administrative Procedure Act

As we have traced, Congress passed the Federal Register Act of 1935 largely to alleviate the communications problem which existed in the early 1930's. The 1935 Act provided for the filing and publication in the Federal Register of (1) all presidential proclamations and executive orders, (2) documents determined by the President to have general applicability and legal effect, and (3) documents required by Congress or by regulation to be published. Besides the daily issues of the Federal Register, the Act called for a compilation of regulations which was to be brought up to date by periodic supplements.

In 1937, the Act was amended to provide for a codification rather than a compilation, similar to the United States Code. The codification was eventually entitled the Code of Federal Regulations. The 1935 Act also provided for the creation in the National Archives of a Division of the Federal Register for the receipt, custody, and publication in the daily Federal Register of every presidential proclamation, executive order, and generally applicable "order, regulation, rule, certificate, code of fair competition, license, notice, or similar instrument issued, prescribed, or promulgated by a Federal agency....." The Director of the Division, appointed by the President, was to be assisted by an Administrative Committee made up of the Archivist of the United States, the Public Printer, and a representative of the Attorney General, with the Archivist as Chairman.

Filing of documents commenced March 12, 1936, and the first issue of the Federal Register appeared two days later. Not surprisingly, the circulation of the publication grew rapidly. Within four months, there were 600 paid subscriptions, and 5,000 copies were being distributed free to federal officers and agencies.[10]

The second important law in the history of this system is the Administrative Procedure Act (APA) of 1946. This measure introduced the element of public participation into the rule-making process. It required the agencies to publish certain regulations initially as proposals and to allow interested citizens time for comment before final adoption. The APA also required agencies to publish routinely other types of material in addition to regulations. This new material included organization descriptions, procedural rules, rules of general applicability, and other documents.

The importance of the Federal Register as a medium for public response to proposed changes in regulated areas cannot be overemphasized. Government regulations are published which involve numerous areas of concern to the public, e.g., environmental protection, consumer product safety, food and drug standards, occupational health and safety, and education. Each proposed change published carries an invitation for any citizen or group to participate in the consideration of the proposed regulation through the submission of written data, views, or arguments, and sometimes by oral presentations at hearings. A few examples elsewhere in this paper prove the significance of this approach.

A further note on the Code of Federal Regulations is in order since it is the annual cumulation of executive agency regulations published in the daily Federal Register, combined with regulations issued previously that are still in effect. Citizens desiring a comprehensive source might request the Code for its obvious completeness more often than the daily Federal Register if aware of its existence. The problem here is, of course, that these same citizens are not responding to proposed rules and regulations but simply reviewing rules and regulations in effect; therefore, the use of the Federal Register vs. the Code of Federal Regulations is an important distinction.

The Code of Federal Regulations, as previously explained, is a codification of the general and permanent rules published in the Federal Register by the Executive departments and agencies. The Code is divided into 50 titles which represent broad areas subject to Federal regulation. Each title is divided into Chapters which usually bear the name of the issuing agency. Each Chapter is further subdivided into Parts covering specific regulatory areas.*

The *Code* is kept up to date by the individual issues of the *Federal Register*. These two publications must be used together to determine the latest version of any given rule.

Organizationally, these publications are now a service of the Office of the Federal Register, a part of the National Archives and Records Service of the General Services Administration.

Another related service of the Office of the Federal Register is the compilation and publication of the *United States Government Organizational Manual*. Additionally, the *Public Papers of the Presidents of the United States* was added to the Federal Register system of publications in 1958. Again in 1965, the system was expanded with the introduction of the *Weekly Compilation of Presidential Documents*. While these functions are not inclusive, it does begin to review the scope of activities which the Office of the Federal Register administers; however, the responsibility of publishing the laws of the Federal government, both statutory and administrative, remains second to none.

A Recent Amendment for Public Information

Since 1967, information held by Federal agencies was to be made available to the public unless it came within one of the specific categories of matters exempt from public disclosure. An amendment to section 552 of the Administrative Procedure Act, referred to as the Freedom of Information Act, effective July 4, 1967, required this availability of information.

---

*See pages 103-105.

The legislative history of the Act made it clear that the primary purpose was to make information maintained by the Federal Government more available to the public. At the same time, the Act recognized that records which cannot be disclosed without impairing rights of privacy or important Government operations must be protected from disclosure.

According to the Office of the Federal Register, all agencies of the executive branch of the Federal Government issued regulations to implement the Freedom of Information Act. Nonetheless, the media expressed support for an amendment to this Act in 1974 to require agencies to keep an index of the documents they generated in order for citizens to have some orderly way of keeping track of what government agencies were doing. The amendment, which passed, shortens to 30 days the amount of time in which an agency would have to respond to a suit claiming that valid information had been denied.[11]

Administrative Rule Making: Definitions and Distinctions

> Federal agencies probably should resort to rule-making much more than they do. And so should state and local agencies, whether or not their governing statutes so require.[12]

Administrative law scholar Davis describes rule-making procedure as one of the greatest inventions of modern government. Among his reasons are:

1) Systematic notification to interested parties;

2) Tentative rules can be published and written comments received before final rules are adapted;

3) Democratic procedure is followed since, in essence, all interested parties are allowed to participate in rule-making procedure;

4) informal consultation of associations and leaders in the field is allowed by administrators formulating the set of rules;

5) Perspective rules are preferred to retroactive law-making through adjudication; and

6) Congressional committees often provide useful supervision of administration, even though it is usually unsystematic and spotty. Such supervision can be quite effective in reaching contemplated rule-making, but is almost always ineffective in influencing administrative law making and policy making through adjudication.[13]

For the purposes of rule-making, the Administrative Procedure Act definitions are as follows in Section 551:

"agency"--Each authority of the Government of the United States whether or not it is within or subject to review by another agency,.....

"party"---Includes a person or agency named or admitted as a party, or properly seeking and entitled as of right to be admitted as a party in an agency proceedings, and a person or agency admitted by an agency as a party for limited purposes

"rule"----The whole or a part of an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy or describing the organization, procedure, or practice requirements of an agency and includes the approval or prescription for the future of rates, wages, corporate or financial structures or reorganizations thereof, prices, facilities, appliances, services or allowances therefore or of valuations, costs, or accounting, or practices bearing on any of the foregoing

"rule-making"--Agency process for formulating, amending, or repealing a rule

Section 552, as previously described, refers to the Freedom of Information Act.

Section 553 further describes rule-making procedure, and Section 556 refers to hearings.[14]

"Regulation" is a term used interchangeably with "rule," but "guidelines" has been used by agencies from time to time to issue interpretations of the statutes under which they operate.

Davis further develops the argument for distinction between *interpretive* rules (rules or statements issued by an agency to advise the public of the agency's construction of the statutes and rules which it administers) and *substantive* rules (rules other than organizational or procedural.....issued by an agency pursuant to statutory authority and which implement the statue, as, *e.g.*, the proxy rules issued by the Security and Exchange Commission.)

He concludes that rules an agency makes pursuant to a grant of power to make law through rules are legislative rules and have the same force as a statute if they are valid, with the three tests of validity being: (1) constitutionality, (2) statutory authority, and (3) proper procedure.

Promotion of Public Awareness of the Federal Register System

While the Office of the Federal Register has capably handled their many responsibilities, criticism has been directed at the document, the Federal Register. Not surprisingly, the overall concern was that it could not be read by the average citizen. The Administrative Committee of the Federal Register is the official committee created to prescribe regulations concerning Federal documents required to be published in the Federal Register and the manner and form in which the Register shall be compiled and printed.

Addressing this problem in January, 1973, the Director of the Office summarized for the press some significant changes:

1. Requirement for a preamble in each document that describes the contents of the document in a manner sufficient to apprise a reader who is not an expert in the subject area of the general subject matter of the document.
2. Requirement for setting forth specific effective dates and action dates.
3. Changes in publication dates of the daily Federal Register for a Monday to Friday schedule.
4. Staggered publication of the Code of Federal Regulations.

Further comments on adequate preambles received from without the Federal establishment enthusiastically supported the Committee's proposal that each rule-making document contain adequate preamble statements that summarize the contents of the document and discuss the substance of the proposed rules, major issues involved, and basis and purpose thereof. The comments received from Federal rule-making agencies generally supported the proposed requirements, although several felt that the proposal went beyond the requirements of the Administrative Procedure Act.

Noting that interest in the *Federal Register* was at an all-time high, the Administrative Committee of the Federal Register felt that increased action was required to make the *Federal Register* more meaningful to readers. Thus, a help for readers is that agencies have the option for preparing news releases to accompany their proposed rules. Since many agencies exercise this option, greater attention may result for selected public issues.

For the process of preparing documents for publication in the *Federal Register*, a handbook on document drafting has been prepared for instructing the agencies.

Another development in the movement to clarify the *Federal Register* was announced on October 31, 1974. A notice to the readers was printed on the back of the daily issues of the *Federal Register*, and readers were invited to comment about the items published by filling the forms out and mailing them in. For example, one can respond to: "For the following reasons, I found it difficult to understand the document.....", or the reader can object that only technical language was used or that the document contained long and difficult sentences. One can also note that the section imposes unnecessary and unreasonable requirements on those persons subject to that regulation.

As an additional aid for the public, the Office of Consumer Affairs has issued a *Consumer Register* as a supplement to the *Consumer News* to interpret proposed rules and deadlines.

One example of a regulation receiving publicity and subsequently more public awareness was the proposal issued by the Department of Health, Education and Welfare on June 18, 1974, to implement Title IX of the Education Amendments of 1972. In this instance, two years after the passage of the Act, both a News Release which included a statement by Secretary Caspar Weinberger and a Fact Sheet summarizing the provisions of the proposed regulation were issued. The provision, with certain exceptions, prohibits sex discrimination in education programs or activities which receive Federal financial assistance. The regulation is administered by the Department's Office for Civil Rights.

Issued on June 18, 1974, the Department extended the period of response from the normal 30 days to 120 days; the Department also scheduled a series of briefings and conferences on the law and proposed regulations at a number of locations across the country--not an unusual procedure on a complex issue.

The Press Release of three pages, followed by a Fact Sheet of thirteen pages, noted precisely that the published regulation was not a final order. Emphasized repeatedly was that the Department would solicit comments on the proposed regulation from interested citizens until October 15, 1974. Copies of all comments were to be available for public inspection in the Washington Headquarters, as well as selected comments to be available in the office of each of the ten Regional Directors of the Office for Civil Rights.

By the October 15 deadline, the Department had received some 9,000 documents ranging from single-page handwritten notes to complex legal briefs.

Another example comes from a Notice of Proposed Rule-Making published by the Department of Health, Education and Welfare, Public Health Service, January 23, 1976, on grants for nurse practitioner training programs. As you are aware, Section 822 of the Public Health Service Act as added by P.L. 94-63, Title IX, "The Nurse Training Act of 1975," authorizes the Department to award grants for nurse practitioner training programs. Interested persons were invited to submit written comments and views relating to the proposed regulations--program regulations which would cover such items as the following: applicability, definitions, eligibility, application, and project requirements, to name only a few of the sections in this notice of proposed rule-making for a specific health program.

In a recent interview with Division of Nursing program officials of the Public Health Service, I learned that comments had been received from deans of schools of nursing, from program directors of nurse practitioner programs, from nurse educators, and from other concerned health personnel who had specific suggestions and comments. One questioned, "Why are program directors for this program from both nursing and medicine recommended.....nurse practitioner programs are for nurses, not physicians." Another commenter questioned the length of the training program. The important point to be made here without discussing a number of the specific comments is the fact that all of you have the opportunity to respond to proposed rules in other such programs and, indeed, are specifically invited to do so. I would urge your active participation in the implementation of health policy.

Fostering Participation for Rules and Laws

An important parallel for rule-making may be drawn to the law-making process. In that process, the Committee's hearing and report, or "Legislative History" of a law, is similar to an agency's proposed rule-making procedure, with its hearings or invited public commentary and preamble to a final adoption which discusses the hearing results and other considerations relating to the issuance of the final rule. To further the analogy, laws are published first in slip print form and then in the Statutes at Large; rules are published first in the Federal Register.

Permanent laws are codified in the United States Code; the permanent rules are codified in the Code of Federal Regulations. The Office of the Federal Register handles the U.S. Statutes at Large, the daily Federal Register, and the Code of Federal Regulations; the House Judiciary Committee supervises codification of the U.S. Code.

To conclude, if issues of program rules and regulations as well as organizational structures are to be questioned by appropriate "clientele," it is proper to consider foundational questions with regard to Federal rule-making. In this land of unreviewed agency actions, we might address ourselves to the following questions: (1) What importance does the public attach to Federal rule-making vs. Congressional law-making? (2) Is the process so complex that the citizen can hardly be educated as to "how" to respond to proposed rules, thereby leaving the "field" to organized interest groups? (3) What role should health practitioners and teachers have in increasing the awareness of the rule-making process? As you teachers analyze an agency's discretionary rules, the rule-making process might also receive intensive examination.

Citations

[1] For a basic and excellent discussion of the term "Executive Legislation," see generally Erwin N. Griswold, "Government in Ignorance of the Law--A Plea for Better Publication of Executive Legislation," 48 *Harvard Law Review* 198 (1934).

[2] See generally U.S., Congress, House, Committee on the Judiciary, H.R. Report No. 280 to Accompany H.R. 6323, 7th Congress, first session, March 4, 1935, for synopsis of the bill by sections and for general statement of the Committee on the Judiciary in support of the bill.

[3] *Ibid*., p. 2.

[4] *Supra*.

[5] F. F. Blackly and M. E. Oatman, *Administrative Legislation and Adjudication* (Washington, D.C.: The Brookings Institution, 1934), pp. 260-261.

[6] Urban A. Lavery, "The Federal Register--Official Publication for Administrative Regulation," 7 FRD (*Federal Rules Decision*), March 1948.

[7] U.S., Congress, Senate, Petroleum Code Case, *Panama Refining Company v. Ryan*, Opinion of the Supreme Court of the U.S., S. Doc. 19, 74th Congress, first session, 1935.

[8] L. L. Jaffe and N. L. Nathanson, *Administrative Law: Cases and Materials* (Boston: Little, Brown and Company, third edition, 1968), pp. 62-63.

[9] Alfred C. Proulx, "Federal Register," *Law Notes*, May 1942, reprint.

[10] Interview with Bob Lewis, Director, Executive Agency Division, Office of the Federal Register, Washington, D.C., October 25, 1974. Mr. Lewis, besides giving the writer references to the early history of the *Federal Register*, has a perceptive understanding of the enormous difficulty experienced in the rule-making process by both agencies and the general public. He cited a 50,000 reader population, noting that in the last four years, subscribers have increased from 10,000 to 35,000.

[11] For reference on this amendment, see P.L. 93-512, 93rd Congress, H.R. 12471, November 21, 1974, and Conference Report H. Report No. 93-1380.

[12] Kenneth Culp Davis, *Administrative Law Text* (St. Paul, Minnesota: West Publishing Company, third edition, 1972), p. 143. Also see Davis' text for specific chapters on the administrative process, the Freedom of Information Act, informal action, discretionary justice, and, in particular, interpretative, legislative and retroactive rules, and rule-making, and hearings (Chapters 5 and 6).

[13] *Supra*.

[14] *Ibid*., p. 157.

Administrative regulations 'equivalent to law' have become important elements in the ordering of our lives today. Many cases have reiterated the rule that executive regulations properly made have 'the force and effect of law.' The volume of these rulings has so increased that full, accurate, and prompt information of administrative activity is now quite as important to the citizen and to his legal advisor as is knowledge of the product of the Congressional mill.

Erwin N. Griswold, in Harvard Law Review, December, 1934

There is not an enlightened country in the world that has not legislation of this character. I have taken the trouble to go through many volumes to discover what England does, what Canada does, and the South American countries, and France, India, New Zealand, and South Africa. They all have legislation of this character and they have had it for years..... Take the huge amount of rules and regulations issued by the Post Office Department, the S.E.C., the R.F.C., the A.A.A., the F.E.R.A., the C.C.C., H.O.L.C., and so forth. Where they are and what they are the Lord only knows. It takes a Sabbath-day journey to find a few of them, yet we know that these rules and regulations are far more important than the basic acts that we pass in this House.

Emanual Celler, in support of H.R. 6323, House of Representatives, 74th Congress, First Session, 1935

Table of Committee of the Federal Register Titles and Chapters*

Title 1--General Provisions

- Chapter I--Administrative Committee of the Federal Register
- Chapter II--Office of the Federal Register
- Chapter III--Administrative Conference of the United States

Title 2--(Reserved)

Title 3--The President

- Chapters I-III--(Reserved)
- Chapter IV--Codified Text of Selected Presidential Documents
- Chapter V--Executive Office of the President

Title 4--Accounts

- Chapter 1--General Accounting Office

Title 5--Administrative Personnel

- Chapter I--Civil Service Commission
- Chapter III--Office of Management and Budget
- Chapter VI--Department of Defense

Title 6--Economic Stabilization

- Chapter I--Cost of Living Council
- Chapter II--Pay Board
- Chapter III--Price Commission
- Chapter IV--Internal Revenue Service

Title 7--Agriculture

Title 8--Aliens and Nationality

Title 9--Animals and Animal Products

Title 10--Atomic Energy

Title 11--Federal Elections

Title 12--Banks and Banking

Title 13--Business Credit and Assistance

Title 14--Aeronautics and Space

Title 15--Commerce and Foreign Trade

---

*Table is not complete. Chapters have been selected as examples.

Title 16--Commercial Practices

Title 17--Commodity and Securities Exchanges

Title 18--Conservation of Power and Water Resources

Title 19--Customs Duties

Title 20--Employees' Benefits

Title 21--Food and Drug

Title 22--Foreign Relations

Title 23--Highways

Title 24--Housing and Urban Development

Title 25--Indians

Title 26--Internal Revenue

Title 27--Alcohol, Tobacco Products and Firearms

Title 28--Judicial Administration

Title 29--Labor

Title 30--Mineral Resources

Title 31--Money and Finance: Treasury

Title 32--National Defense

Title 33--Navigation and Navigable Waters

Title 34--(Reserved)

Title 35--Panama Canal

Title 36--Parks, Forests, and Memorials

Title 37--Patents, Trademarks, and Copyrights

Title 38--Pensions, Bonuses, and Veterans' Relief

Title 39--Postal Service

Title 40--Protection of Environment

Title 41--Public Contracts and Property Management

Title 42--Public Health

Chapter I--Public Health Service, Department of HEW

Title 43--Public Lands: Interior

Title 44--Public Property and Works

Title 45--Public Welfare

Subtitle A--Department of HEW, General Administration

Subtitle B--Regulations Relating to Public Welfare

Chapter I--Office of Education, Department of HEW

Title 46--Shipping

Title 47--Telecommunication

Title 48--(Reserved)

Title 49--Transportation

Title 50--Wildlife and Fisheries

Source: Office of the Federal Register and National Archives and Records Service, General Services Administration, *Code of Federal Regulations: Finding Aids as of January 1, 1973* (Washington, D.C.: U.S. Government Printing Office, 1973), 463-473.

INNOVATION AND THE CHANGE PROCESS

Carroll A. Gardner, Jr.

Director of Special Programs
Southern Regional Education Board
130 Sixth Street, NW
Atlanta, Georgia 30319

It's indeed a pleasure for me to be here and to have this opportunity to meet with you. I arrived in time for part of yesterday's afternoon session, and I thoroughly enjoyed Juliette Lester's talk and her reiterating the phrase "you've got to do your homework." What we will be talking about this morning and later on today will emphasize this fact--if there is anything that is required in the change process, it is homework.

I see by the agenda that several other speakers will be addressing specific, more definitive aspects of the change process and will be describing some innovative programs. Therefore, I shall be quite broad and general and rather brief in my remarks. I shall first talk about the changing environment in which we are all living; secondly, review some steps that I have identified as being important in the change process; and finally, hopefully, stimulate some thought on change itself and the roles that each of us may play in the change process.

Few of us will deny that we are living in a period of dynamic change. Recent advances in travel, communication and computer technology have had a dramatic impact on all of us professionally, socially and personally. I think that the decades of the 70's and 80's are destined to be particularly innovative in the history of higher education. Higher education itself is undergoing dynamic change. We see institutions of higher education pursuing new social objectives. The focus of education is moving from teaching to learning, from the producer to the consumer. The role of the faculty is changing from being a conveyor of knowledge to a facilitator of learning. Education is becoming less content-oriented and more process-oriented. In the health professions, the changes appear to be even more dynamic and far-reaching. We are observing the consideration of a national health plan. The complexity of the emerging health care delivery system will require the development of new professionals who combine the skills of more than one profession. This is the world in which we live. We have no choice--we're here, it's here. How are we going to deal with it?

There is no way for me to cover all that is involved in the change process in this presentation. I shall consider our meeting successful if I leave you with the following impressions. First, the change process is, indeed, just that--a process; it is both flexible and adaptable. Secondly, successful change requires rational and systematic thought and action. Thirdly, we all have a responsibility to participate in the change process. With these thoughts in mind, I want to review briefly some steps I have identified as helpful and important in the change process.

First of all, I want to refer you to a document that I have found to be an excellent description of the change process. It is Ron Havelock's book, The Change Agent's Guide to Innovation in Education. This book is the most comprehensive document I have read on change. I am not going to give you any other references because Havelock has included as an appendix to this book an annotated bibliography which refers to many other publications in the literature on change. As many of you who are reading change literature know, most of it is addressed to change agents. I doubt that many of us are going to be change agents in the professional sense; that is, professional consultants who will assist institutions or departments or programs in the process of change. But, each of us must remember that *we are change agents*, in that we are going to be *supportive of* or *resistant to* change. Therefore, each of us has to be attentive to the steps that we're going to be reviewing this morning.

I've broken the change process down into eight different steps. Havelock uses six; Warren Bennis has seven. The important thing is that, at your institution, you and your colleagues must adapt the change process to your special circumstances. But for the sake of giving you an outline of the process I will discuss, the steps are (1) institutional goals, (2) felt need, (3) diagnosing the problem, (4) searching for resources, (5) choosing a solution, (6) implementation, (7) evaluation, and (8) stabilization and self-renewal. Again, I emphasize that these eight steps are most useful as a guideline; as I mentioned earlier, the change process is a rational, systematic, step-by-step procedure. A key factor in any change model is flexibility, so that the model can be acceptable to your institution and compatible with your special circumstances.

The first step in the process is recognition of and attentiveness to the overall goals of the institution. Any proposed change must be made within the context of the institution's stated purpose for being, in spite of the fact that institutional goals are often ill-defined. Any changes which threaten institutional goals are going to have less chance of being adopted than those which are not threatening. One of the most frequently stated reasons for the failure of innovation is that the innovation itself was not related to institutional goals. This is not to say that change is impossible if it is in conflict with an institution's goal or goals. Indeed, the problem to be solved may be that the institutional goals are not relevant to contemporary society, in which case the goal of the change process would be a redefinition of institutional goals.

The second step in the process is felt need. This is where the change process really begins. Someone or some group feels discomfort, dissatisfaction, tension. There's a discrepancy between the ideal and the actual. Students may feel they are not participating enough in the learning process; faculty may want to modify their teaching or may want to try something new that they have heard of. You are not happy with the _status quo_, and you want to develop something new, something better.

This brings us to the third step, diagnosing the problem. At this point, the felt need should be articulated as a problem statement and analyzed carefully and systematically. By the term systematic, I mean that the problem should be viewed within the context of the system of individuals and groups that are interrelated. Where is the pain? Where is the hurt? What are the causes underlying the obvious symptoms? What are the attitudes and the feelings of the students, faculty and administrators regarding the problem? What you are working toward is a specific problem statement that can be studied rationally and systematically, the goal being a solution to that problem.

The next step is a search for resources. This involves the identification and collection of resources to assist you in dealing with the problem. Resources include printed material and physical facilities as well as people. Such resources should include information relating to the specific problem, knowledge about solutions to related problems and their potential adaptability at your institution, and information on whether potential solutions will solve the problem and/or meet the felt need.

The fifth step is choosing a solution. After you have defined and analyzed the problem and acquired the resources to help you determine alternative solutions, the next step is to choose the best solution to the problem. In the search for resources, you will have identified several alternative solutions, some of which have specific application to your institution under specific circumstances. From this array of alternatives, you will select that alternative which appears most likely to solve the problem, is practical in terms of time and money, and is acceptable to members of the institution. Now, certain phrases within that last statement are critical. Consider the phrase "practical in terms of time and money." Timing is one of the most important factors in the change process. You can have a great idea; but if the time is not right, it will not work. Money is another critical factor, particularly these days when institutions are experiencing a shortage of funds. If your proposed innovation is too costly, your chances of its being accepted are slim, unless you can demonstrate that today's expenditures will result in future savings.

Next, let's consider the phrase "will be accepted by the members of the institution." It is important that as many people as possible who will be affected by the proposed change be involved in the change process. This will pay off in handsome dividends when you arrive at the implementation stage. I firmly support this strategy of collaboration--getting involved at the very beginning of the change process those who are going to be affected by the change. This is often time-consuming, tedious and difficult. It is much easier for an administrator just to make a decision regarding a change and say, "This is the way it's going to be." But when it comes to acceptance of change--the implementation phase--you'll be ahead of the game if you have brought your people with you every step of the way. There are several arguments in favor of this. First, those to be affected by the proposed change will have been involved and motivated from the very beginning. Second, the process itself will benefit from their input. Third, because of their involvement, they are more likely to work toward successful implementation of the innovation. Another important factor is that collaboration implies a mutual trust among those involved in the change process itself.

The next three steps in the change process--implementation, evaluation, and stabilization and self-renewal--are vital to the process but somewhat more difficult to accomplish than the important steps that precede them. But often these three steps are easier if the earlier steps were done well. Implementation is the stage in the process where all your assumptions and decisions are put to the test. At this point, it is determined whether or not your innovation is going to succeed or fail, whether it will be adopted or rejected.

The next step, evaluation, I consider along with the implementation phase. It is important that the implementation of an innovation include a process for evaluating the innovation. Many who are writing on the change process argue that academic innovation is too frequently planned on the basis of guesswork and hunch. Provision is seldom made for evaluating the results of change on more than an informal assessment. Outside funding agencies can help by specifying systematic planning and evaluation activities as a requirement in their grants. Federal agencies and private foundations are emphasizing evaluation more and more in their critique of proposals. They are getting much more strict in their requirements for evaluation. We can no longer get away with a brief paragraph on how important it will be to our project to have it evaluated well and how we are going to choose an evaluation team to evaluate our program during development and implementation. That does not suffice. The agency or foundation will come back to us and ask, "What specific means of evaluation? How do you plan to evaluate this project?"

Stabilizing the innovation and generating self-renewal within the institution represents the last step in the process. The continuation of the innovation after it has been implemented is important in any change process. Those responsible for financial as well as moral support for the change process want to see the innovation go on its own and become an ongoing activity of the organization or institution. Private foundations and the federal government provide funding to support a particular project activity or set of activities. They want this seed money to get something going. What they want more than anything else is for the funded project to continue on its own after the grant period has expired. The Nursing Curriculum Project at SREB has been working for three years on some recommendations. Well, we could have quit there and handed over to the nursing profession some recommendations that had been developed by competent professionals in the field, and let the nursing profession do with them what they wish. Who knows what the response of the profession would be? The sponsoring foundation, however, is now considering very seriously funding a second phase of the project, which is the implementation of these recommendations. Their purpose is to see if these recommendations will work; and, if they do work, to see that they are adopted as ongoing changes that will have considerable impact on the education of nurses.

Continuing evaluation is important in the maintenance of an ongoing project activity after it has been implemented. Problems should be resolved as they come up. The innovation should be revised periodically to meet the changing needs of the organization. Self-renewal means that the institution and the people within the institution should be change agents for themselves. This is where we all come in. One way to work toward self-renewal is to encourage a positive attitude toward innovation. Another is to establish an internal agency structure dedicated to innovation. The third is to encourage external orientation on the part of those in the institution, providing them opportunities to learn about new ideas generated off campus.

Let me conclude by saying two things about the roles that we can play in the change process. As I say, most of the literature that has been written about the change process really involves change agents, per se; but each of us has two roles, one as a professional and one as an educator. As professionals, we have a responsibility to be attentive to the change that is going on about us. Our colleagues will be proposing certain changes. I don't know how many times I've heard Bettye Milliken say that she does not believe in change for the sake of change. I think each of us has to be attentive to this; indeed, we must be resistors of change if we recognize the proposed change is not what is needed at the institution or department or program at this particular time. We also have a responsibility to contribute to the success of a change or an innovation if we believe in it. We must be willing to participate in the change process for the purpose of solving a problem or meeting a need.

As educators, we have to recognize that those persons who are now going through the education process will be living in a world of constant change. We have to provide them with opportunities for them to develop their abilities to be receptive, to be attentive, to be aware that change is continuous; and we must encourage them not only to participate in the process of change but to be a stimulus of change.

In his book, Changing Organizations, Warren Bennis states: "It will not necessarily be a happy life for those caught up in these changes. But it should be exciting, at least for those who can feel exuberant about the abrasive challenge of the adaptive process and a creative joy from inventing new ways to deal with the constant image of social change."*

---

*Warren Bennis, Changing Organizations (New York: McGraw-Hill Book Company, 1966), p. 177.

PANEL: ROLES AND RESPONSIBILITIES FOR EFFECTING CHANGE

Following Dr. Gardner's presentation, Mrs. Nell Hall of the Marietta-Cobb Area Technical School in Georgia, served as moderator of a three-member panel discussion of the topic "Roles and Responsibilities for Effecting Change."

Archie G. Lugenbeel[1]

Dr. Gardner has been gracious enough to allow the panel members the latitude of responding to the presentation topic from three different vantage points. My response is as a project manager of several federally funded projects that have been considered, if not innovative, at least conceptually meaningful and timely. For example, the project that I have the privilege of managing now is entitled the Rural Allied Health Manpower Project. Its emphasis is to develop, implement, and demonstrate a training model that produces a multiple-competency technician for small, rural hospitals.

Through Jerry's (Dr. Gardner's) kind consideration, he was willing to let me present to you several definitions. Here are three that I felt important to your understanding and my appearance as a project manager: innovation, change, and project.

Innovation - any change which represents something new to the people being changed

Change - any significant alteration in the status quo designed to benefit the people involved

---

[1] Project Director, Rural Allied Health Manpower Project, VTI Campus - New Dorm, Southern Illinois University, Carbondale, Illinois 62901.

Project - any organized system (program, institution, or organization) designed to accommodate specific outcomes, having a definite beginning, an end, and a sequential history

Dr. Milliken asked us to relate to responsibilities and roles. I see the responsibilities of a project manager in any system, change-oriented or otherwise, as having two thrusts. One is a maintenance effort. The other is the change effort. On the maintenance side of project management, there are the day-to-day operational activities. These include keeping things going, motivating staff toward objectives, seeing that the goals are achieved, etc. Change activities are required in order to find better ways to carry out the day-to-day requirements and/or react to constraints that impact on the project efforts.

Maintenance and change, change and maintenance, how the project manager handles and configurates these and the cues that come from the environment determine how successful a change agent is.

Basically, then, the project manager is a dichotomized individual. He is caught between the roles of a change agent and the resistor to change. That's not bad. John Gardner states in his book, Self-Renewal and the Innovative Society, that we need both tradition and self-renewal (innovation). We need, therefore, the tradition-based emphasis. It has brought us to where we are. But we need the young, the vibrant, the new as well, since its excitement contaminates and generates self-renewal and, in turn, progress.

The roles specified in Havelock's book recommended to you by our presenter and utilized by me in developing the majority of my remarks are: catalyst, solution-giver, resource-linker, and process-helper. Because of the impact John Gardner's book has had on me, I would like to add a fifth role, and that is the self-renewing processor.

Here are some short definitions of these roles. The catalyst's major role is to overcome inertia, to prod and to pressure the system. The solution-giver's role is to know when and how to offer solutions. The resource-linker brings resources together for their best use. The process-helper should know how to recognize and define problems, diagnose problems, set objectives, apply relevant resources, select or create solutions, adapt and instill solutions, and evaluate solutions to determine the satisfaction of the problem. The self-renewal processor knows process, both maintenance and change; develops awareness of new change practices; comprehends diversity of viewpoints; knows resistors and innovators, collects them around him; provides an open forum for advocates of change, and fortunately experiments while making it the norm.

Now, in capsuled form, I want to share with you from my own personal experience as a project director some notions about how the change process can work. In the area of project management, some way or other, you need to find out where your program efforts fit in the requests for proposals (RFP) that come out of the federal agencies and the foundations. If you find an RFP that matches your needs, try to meet its request to the fullest. Write the proposal adequately--the chances are good you will become the recipient of a project grant. Why do this? Simple. Projects give you flexibility to be innovative because that's what the grant agency is looking for--something different. In managing the project, you develop a scope of work; and once developed, this gives you the focus and the structure to develop your maintenance aspects. Putting it to work, you plan, organize, staff, direct, and control. But there are always forces acting upon your work-a-day needs. There are actuating forces and limiting forces. Each of these pushes you toward change, modification and you must innovate. How you as the resistor/innovator handle these forces determines the project outcomes, accomplishments. In education, we tend to evaluate outcomes on the basis of whether we were successful or not in meeting our objectives or the agency's requirements. The change agent project manager's perspective goes one step further; he evaluates the outcomes on the additional basis of how well the maintenance efforts meshed to bring about the particular degree of success.

A few passing comments related to our speaker's remarks. First, Dr. Jerry Gardner's recommendation of Roland G. Havelock's book, The Change Agent's Guide to Innovation in Education, is highly endorsed by me. May I again add John Gardner's book as well. Second, Jerry said he is not on the direct cutting edge of change because he is further away from the operational or implementation side of change. I would disagree, in that the further up the line you are in management decision-making, the more you can bring about change. You can set the atmosphere for change. Remember--if the change is to be implemented, it must match the goals of the organization. A collaborative effort of those on the planning edge and the implementation (cutting) edge is needed to bring about change and self-renewal. And finally, to you, Jerry, may I say that since we both appreciate and utilize

Havelock, I thank you for the ease with which you aided me in developing my remarks here today.

Keith Johnson[2]

My remarks relative to this topic are primarily from the standpoint of local administration. Jerry mentioned that key factors in effecting change are flexibility and adaptability, particularly as related to institutional goals. I would submit that this is true if the institutional goals are realistic in terms of the peripheral changes which occur, since the institution is part of a larger picture. Too often, I'm afraid, those of us who function primarily in a local setting are reactors to change rather than innovators. The changes which influence or govern institutional or program conduct or procedure are usually mandated at a higher policy-making level, presumably based on recognition of a need for change at the local level. However, we at the local level are often the last to realize that certain changes were needed in the first place. Instead of being in a position to say, "We've identified a certain need and brought about a desired change," we often respond with, "Where did they get a crazy idea like this?" I submit, then, that it is the responsibility of those who function at the local level, administrative and instructional, to be innovators in regard to policies, procedures, regulations and program development. Obviously, many persons at this level are among the most effective innovators of change.

Jerry also made a point of evaluation. I think people who are successful innovators are evaluators of their own programs; and they're also comparison shoppers, so to speak. They know what's going on around them; they are comparing their programs to others. This leads me to another point.....that of obtaining this information. When you are tied to a local setting, obtaining information and knowing what's going on, even in your own state, is one of the most difficult jobs of all. The gathering and dissemination of information is a role in which state and national professional associations can and do function very effectively. These associations have become an important voice for effecting change, particularly as change relates to the legislative process. I think the state associations' effectiveness in this regard, however, could be greatly enhanced by establishing more effective guidelines for achieving mutual goals from state to state and from states to national associations.

---

[2] Coordinator, Allied Health Careers, Athens Area Technical School, US Highway 29, North, Athens, Georgia 30601.

There is still another important voice, in my view, for effecting change in the legislative process--that of the individual. It has been my experience and observation that legislators, both state and national, listen and respond to personal contacts and written communications. Incidentally, here's a tip on technique: I was informed by a Georgia legislator that he and his constituents are not particularly influenced nor impressed by what he referred to as a shotgun, carbon-copy approach to written communication; for example, a letter which has been mass-produced and sent to every known legislator. It is disconcerting, he commented, to look to the left and to the right in Senate chambers and see that everybody has a "personal" letter identical to his. His message is to keep the communication personal and to the point because you'd be amazed at the amount of mail they do receive on any given issue.

There is still another category of agencies which can be quite effective in bringing about desired change. Heretofore, I think this category has been utilized more for effecting change at a local level and indirectly on a larger scale. These are the accreditation agencies, both institutional (such as the one most familiar to us in the southeastern United States, the Southern Association of Colleges and Schools, and its counterparts in other regions of the country) and those which concern themselves with program accreditation, such as the national occupational associations. I doubt that any other type of agency is afforded a better opportunity for an in-depth look at institutions and individual programs on a regional and statewide basis. I won't go out on a limb and say that effecting change is their responsibility; I don't think they would entirely agree with that. But the change agent role is one in which these agencies could function, particularly if information accumulated through site visits was correlated and analyzed on a large scale. This would, indeed, provide a basis for some valid decision-making.

Whether change is effected through an association, an agency or an individual effort, it can only be accomplished through a personal commitment.

To illustrate this point, let me [illegible] with this short anecdote. There was once an aerial performer, sometimes called a high-wire or tight-rope walker, who decided to finish a somewhat distinguished career in style by walking a wire stretched across Niagara Falls. The big day came; preparations had been made. As fate would have it, conditions were considerably less than ideal for undertaking this test. It was very, very windy and raining slightly; but a large crowd had gathered on each side, and the aerialist felt committed. So, with balance pole in hand, he started across. A grounds maintenance worker on the receiving side noticed what was going on and walked over with his wheelbarrow. Well, the performer, by the grade of the Almighty, made it across, but arrived in a rather nervous condition. When he stepped off, the grounds maintenance man walked up and said, "That was the most wonderful exhibition I've ever seen in my life. Could you do that again?" The aerialist said, "No way." He was thanking the Heavenly Father that he made it. But the maintenance man persisted. He said, "I know you can do it. You're the most wonderful performer I've ever seen in my life." Again, the aerialist refused. The maintenance man said, "Listen, you could do that walking back across pushing this wheelbarrow; would you do that for me?" The performer said, "You really do have confidence in my ability, don't you? Very well, I'll do it. Get in the wheelbarrow."

I suppose if that story has a moral, it is that in any worthwhile endeavor, particularly in regard to effecting change, it may be necessary to get in the wheelbarrow.

Kenneth Skaggs[3]

Being anchorman on a panel is a very nice position; all of the important things have really been said. The anchorman has a good deal of flexibility in being able to just get up and talk awhile.

---

[3] Specialist in Occupational Education, American Association of Community and Junior Colleges, One Dupont Circle, NW, Suite 140, Washington, DC 20036.

Now, I'm going to approach this matter of change and innovation in a little bit different way and thus open up my notes to some real attacks from the audience on my reasoning here. Then, I'm going very briefly to talk with you about the role of associations, especially the national associations, in the whole world of change and innovation. In my opinion, there is really only one basic reason or justification for change in education procedure--to improve and make more effective the learning experiences of students. Change for the sake of change, as has been pointed out by Dr. Gardner and the other panelists, is not effective. We can justify it only if we are going to make the learning experiences of students more effective and more useful.

To me, the word innovation itself has become synonymous with many methods and procedures for learning during the last decade and, of course, before that; but our attention here is focused on what has happened in the last few years, so recently that we have not yet grasped its true meaning. Now, I'm talking about the word innovation; its implications for leadership and its impact upon student learning are rather obvious. This conference being held today would attest a little bit to the fact that we are still trying to find the true meaning, the true impact, the true effectiveness of innovation. True innovation, of course, is a part of change; but change is a larger term, and innovation has a rather more specific meaning. True innovation is not just doing things a different way or modifying existing programs. We can tinker and we can polish the old Model T; but when we finish, it's still the old Model T with a new paint job, some polished brass and maybe a souped-up carburetor. This is not really innovation; this is modification. But, this is a part of the change process.

Many institutions are doing things differently. They have modified curricula or the learning environment or procedures, and proudly announce that all these changes are innovations. Really, they are not. True innovation comes from staff and administration working together in realistic leadership for a new age--new kinds of students, new goals, new objectives--in educational service. The word innovation itself means "new," not "modified;" not just a kind of tinkering with what we're doing, but something really new that strengthens the institution and makes the learning experiences of students more effective. The role of leadership to accomplish innovation is paramount. The approach to creation and acceptance of innovation is arduous, sometimes even agonizing, for it demands a whole, new perspective. To accomplish true innovation in education demands, first, a new, bold and deeply considered attitude on the part of teacher and administrator that continually asks, "Is this the best way to accomplish our teaching goals?" "Is this the best way to meet the needs of students?" "Why do we do the things we do in this particular way?" "Is there a better way to do these things?"

Secondly, to accomplish true innovation in education, we must seek true understanding of the students we teach--their needs, desires, hopes, goals and ambitions; their real roles in the educational process, in the learning process; their functions in society. These things we must know. Of course, to do this, we must come to the realization that the students we teach today are not the traditional college students of yesteryear. It's rather interesting to note that in the community and junior colleges across the nation, the average age of students is almost 28 years; you can compare that with the American university or four-year college student which is about 22 years. In other words, when we talk about students in our community and junior colleges, we're talking about a great many older people coming back to education or coming into the educational field with definitely defined goals. Certainly innovation--a new way of teaching people--becomes most important. We need also to know the needs of society that can be met with educated and trained personnel, and also, the real meaning of education and training for modern personnel.

We've had some interesting things happen in the community and junior college field. I'm centering upon this particular segment of education because this is my own background, but what I say could perhaps apply to other areas just as well. We need to know what the real meaning of education is. What are we trying to do? A very interesting thing has happened over the last decade or so in the community and junior college field. The junior colleges were really established many, many years ago as transfer institutions. The liberal arts became the main basis of curricula. Then came this thing we called occupational education or career education. Today, almost half of all the students enrolled in the two-year colleges across the nation are in occupational programs, with very definitely defined goals. We've had to take a new look in these two-year institutions at this new kind of curriculum and its place and role in the whole educational process.

Let me give you a few examples of the thinking and questioning that have led to innovation. First, why do we allow students to enter the educational process only several times during the year, and on a few, specific days? Should people who want an educational opportunity and who have well-defined goals be required to sit around and wait for two, or three, or four months until the colleges are ready to admit them? We do see some evidence of innovative procedures. We have community and junior colleges where a student may enter an educational program at any time, any day, just come in and register. Now, I know what that has done to registrars; that's why so many of them are in hospitals and that sort of thing. But, this is really happening. This is something really new. It is a real innovation because people began to say, "Here is a young man coming back from the Armed Services. Why should he wait months before he can continue his education if his goals are well defined, if his objectives are set in his mind? Why should he wait?"

Of course, you can see all the implications for innovation and change in curriculum, in the way we teach in these institutions, and what the problems really might be. But this has happened--it is happening today. Is the lock-step curriculum--the old lock-step curriculum, in which you made out your lesson plans and on each day knew exactly what the students were supposed to do and where they were supposed to be--the only way that we can teach students? Did this take into account those students who moved much faster than others through educational programs? And don't we have a duty to all students who come to us, to try to give them the best and most effective educational program possible? Is the lock-step curriculum the best way to teach? When we ask ourselves these questions, sometimes we get some really innovative ideas. An example, of course, is the development of modular curriculums, in which the student simply moves at his own pace, completes his modules, moves onto something else, but not in a lock-step kind of way.

Well, we've asked ourselves the questions, "How effective really is the conventional classroom environment for learning? Is the lecture method really a good teaching device? Are the ways in which we are offering educational opportunities to students the best ways?" We have institutions today that do not have classrooms in their physical facilities. They have built learning resource centers; they have built the small places for learning in which students can work under a peer-type instruction, or independent study or through personal communication with the teacher. We have done away with the conventional type of classroom. Now, I'm not submitting to you that all these are effective. They are new, they are innovative; and some of them, I know, are going to fall by the wayside, simply through experience and through evaluation. So, I'm not presenting these to you as the way to go; but I'm saying that out of the questions we're asking about conventional methods and conventional procedures, we are beginning to move toward innovation. We're moving toward change.

How effective are our student evaluation procedures? How do we justify the final examination, for instance? Studies from some very distinguished scholars at some of our bigger universities (Harvard, for instance) have brought out reports showing that the final examination is not at all a good learning device, nor is it a very good evaluation device. Well, if this is true, how do we then evaluate students? Out of this has come a new look at curricula. Now, we're talking about competency-based curricula and performance-based curricula. In other words, it's not nearly as necessary for a student to retain in his memory a whole lot of facts and theories and principles as it is to be able to perform well in whatever he is being taught to do. Have we moved too far in the direction of making information retention and memory the basis for success in education? We might ask ourselves that question. Is performance really the basic educational tool for the modern age? These are questions that might lead to innovation; certainly, they will lead to change.

Are we, the teachers, the only valid teaching resources? What other learning resources are valuable? Peers? Self, in independent study? What others? How can we look at the curriculum in a new kind of way to make the learning environment more effective and more beneficial to the student? Are we really meeting the needs and ambitions, the expectations of the advanced student, the better intellect, the faster moving student, the quick learner? And on the other hand, are we ignoring the slow learner? Are we simply putting him in a category--"Well, he's going to fail, and this is a part of the great educational selective process"? What are our real responsibilities to the student as a person? Are we devising an educational procedure to make learning possible for all our students?

Now, these are some of the questions (and there are many others, of course) that you could ask. These are the kinds of questions that we really are using to seek answers, to find what changes innovation could bring about. And so, we need to ask ourselves these questions.

Well, my particular assignment this morning is to talk a little bit about the role of a professional education association in this whole process of change. As the old joke goes, I have both good news and bad news for you. Nationally oriented associations and agencies can be very, very helpful, provided they want to be. They can be a major resource in this whole area and field of change. What is the role of an agency or an association in change? I believe professional associations can help to establish definitions of change and innovation. We have the resources for this. The staffs may be able to develop the studies necessary so that this could be one of the roles or functions of an association. We can provide the means for planning, exploring, thinking, perhaps by holding and participating in more conferences such as this, bringing people together so they can exchange ideas, so they can talk together, discuss and think on some of the questions that will lead to change and to innovation. We can gather, study and disseminate information that will help institutions and people to create and devise new procedures--innovative procedures--to provide for change. We can help fashion the evaluation instruments to assess what we're doing in relation to basic needs and roles. We can support and encourage institutions in new ways of thinking and new procedures. These are what an association may very well do--encourage, support and disseminate information. All of these things can be part of the role of an association.

Unfortunately, we don't always do this in associations. While some associations are doing these kinds of things, there are some others that do not. I am making a personal observation now, and so I will take total responsibility for it. Some inhibitions come from nationally oriented agencies or from associations themselves. And unfortunately, this may be true in the allied health field. The accreditation, licensure and certification factors frequently inhibit innovation. How does an association or an agency concerned with a particular program or with a particular goal in education provide for change or for innovation? I've had the experience of going on many campuses and talking with the people there who are developing allied health programs that are contrary, in their opinions, to the way the program should be developed. But the faculty's better way is contrary to the Essentials established by a national association. Then comes that agonizing period in which you try to get the controlling association or agency to recognize innovation, to allow for setting aside the Essentials or the accreditation principles and policies in order to try out this innovative procedure. A good example of this is found in the radiological field, in the programs for the education and preparation of radiologic technicians. For a long time, one of the basic principles of that program has been the requirement of 2400 hours of clinical experience. Now, if you look at all that would be required in a two-year program designed to turn out a technician-level person and add to it 2400 hours of clinical experience, you come up with something that is almost incredible. So, many institutions have gone back to the Radiological Society and said, "Look, we have been doing some experiemementation, and we can accomplish the same goals in a less number of hours." And so, there has been a controversy in this field. I could give you numerous other illustrations. So, sometimes agencies and associations can be very helpful in their support, in their encouragement for institutions to look carefully at their students, at their needs, to look at the society which they serve; and then to try to find new and more effective ways of doing things, to effect the changes necessary, to effect innovation--true innovation.

On the other hand, sometimes associations and agencies don't quite see this: "Let's maintain the status quo." And in the name of "good quality programs," they say, "Oh, no, we can't go into these things now." And so, we do have some inhibitory factors as well as encouraging factors. I would leave you with that--the role of the association in this whole field of change can be a very important one. It can be a tremendous resource to individuals and to institutions in trying to effect positive changes that lead to a new environment for learning, more suitable and more appropriate for the modern age and to the modern student. On the other hand, associations can also be inhibiting factors, and this I think we have to realize, too.

IN THE FOREFRONT OF CHANGE--NONCONVENTIONAL APPROACHES TO DIAGNOSIS AND TREATMENT

Evelyn Monahan

Ph.D.
Division of Special Studies
Georgia State University
University Plaza
Atlanta, Georgia 30303

Being in the forefront of change--I guess that is a good term to describe what I have been doing of late. I've been teaching in an area that, for want of a better word, might be called parapsychology or unconventional healing. I say "for want of a better word" because I think "unconventional" is a misnomer. What I will be speaking about is more properly called interdisciplinary healing techniques that cross many, many lines. You really can't put it in a little box in a corner and say, "This is the exclusive knowledge of such and such a discipline or this belongs here in this one department, that belongs in another department, and never the twain shall meet."

I was listening this morning to everything that was said about your being open to change. I was interested in the questions that were asked. I was sitting there thinking that a lot of you may not have heard some of these ideas, and I'm going to come up here and start talking to you about them and demonstrating a couple of things to you. I was wondering how this was going to be received. It wouldn't be the first time it was received with some hostility, but it's always nicer to see that people are willing to talk about change and at least listen. That is a beginning, as you know, as educators.

I also can't help but think of two people who were in the forefront of change; they came to mind when some lady over here brought up the fact that you have to be able to feel comfortable with your uncomfortableness. Two people that I really admire, who have helped me a lot when I have been talking with people or lecturing to a class, were two men--one by the name of Giodano Brono and one by the name of Galileo Galilei. These guys were really in the forefront of change. I was really surprised when I heard about Brono because this was a guy who had talked about some of the things that Galileo brought up afterward. The Church burned him at the stake for suggesting such radical innovations. He was a monk, too. And then, of course, there's the story about Galileo when he was working with the telescope. He was threatened with excommunication for such terrible, way-out ideas. A mathematician (whose name escapes me right now) had come over to his place, and he asked the mathematician to look through the telescope. The mathematician absolutely refused: "I will not look through the telescope. If I look, I may change my opinion. So I'm not going to look." I guess what I'm going to ask you here today is to be willing, to dare to look through the telescope. Maybe your opinion will change; maybe it won't. But you owe it to yourself, to the people you come in contact with, and to those you teach to at least look and leave yourself open to decide.

Now, the areas that I have gotten into are areas that a lot of the health professions have written off, have said there's nothing medicine can do for these people. They can be made comfortable, but they're just hopeless cases. Well, I'm not so willing to accept the term "hopeless." I think that a lot of things that we deal with--that you deal with today--may have at one time or another been considered hopeless, terminal, something to be put on a shelf. We've discovered new ways now to deal with these things. There's a motto that belongs to the Association for Learning Disabilities. I'm going to paraphrase it a little bit, but it goes something like this: "These children can learn, if we can learn to teach them." Maybe a lot of these people, too, can be helped if we can learn how to help them. There's also another motto that I'm going to throw at you now. This one is another that really impresses me, and it's from the United Negro College Fund: "A mind is a terrible thing to waste." I like that one also because I'm going to be talking to you about the power of the mind, the power of the patient's mind, the power of students' minds--the idea that perhaps there's a lot more to that mind and a lot more to its ability than you previously thought. There are areas of consciousness that are only beginning to be explored, that we've just scratched the surface of.

The thing that got me into this was that when I was 21, I had an accident which involved a head injury. That doesn't mean that somebody out there should say, "I knew it! If she hadn't had a head injury, she wouldn't be up there saying these things." I had a brain injury, and as you know, brain cells don't regenerate. There was damage to the left occipital area, a subdural hematoma, a lot of bleeding, and it left me with about a pinhole of eyesight--my eyesight just closed in. Also, it left me with a form of epilepsy--Jacksonian sensory, focal seizures--and weakness in the left side. All of these things were looked at for a long time; all the different tests were done. The doctors said there was nothing they could do; the damage was permanent. A little while after that, I had a surgical accident. I had had a sterile abscess on my neck and during a simple I and D, the doctor slipped and severed the cranial nerve, which, of course, was very bad manners. To make it worse, he told me I was just favoring the incision until a myelogram showed that the nerve was cut. Well, that fixed up my right arm pretty good. I could raise it to maybe a 40° angle, or something like that. This, on top of everything else. Already medicine had told me nothing could be done for me--I had to learn to live with it. Well, I got tired of living with it. I got to thinking about some of the things that I had heard growing up and some of the things in parapsychology--way-out again--talking about the power of the mind. I started working with myself on some of these things, and I asked two friends to do this with me, to use the idea that energy is a *real thing* and that *thought is energy*. I know that you have dealt with the fact that a person can have a will to die, that they can lose their will to live. I thought about how powerful that really is--what your thoughts can really do to you, and what you can really do with a thought. And I started thinking about what it would be like to be able to see, what it would be like not to have to take phenobarbitol three times a day, what it would be like to be able to use my right arm again. Now, I had this thing for nine years before I decided that I was going to do anything about it. For those nine years, I was pretty hostile. I don't know how anybody put up with me. I was mad at the world. And if I could have gotten to God, I would have punched Him right in the nose. These are the kinds of feelings I had.

But when I started using *the power of the mind*, I had my eyesight back in ten days. (I'm nearsighted, but I was nearsighted before.) I don't have seizures anymore; I no longer take dilantin or phenobarbitol, and my arm is fine. Now, according to some twenty doctors who documented my condition before and after, this couldn't be.

Well, I got to thinking about it afterwards. I'm not unique. I'm a human being. We have much more in common than we could ever have that is dissimilar, you and I. I started thinking, "If it can work for me, why not for other people?" I got very interested in the power of the mind. Then, I became very interested in talking with other people about it. I called Georgia State and told them, "Hey, I'd like to teach a course in parapsychology." They took my name and number and said, "Don't call us. We'll call you." You know what that usually means. Well, a couple months later, I got a phone call from them saying if I really wanted to do this, to come on down. I had had the curriculum and the whole thing worked out and went down there with it, and they let me start the course. It started four and a half years ago, and it's been going ever since, with two to five classes a quarter. This is how much interest there is. This shows that people out there are hungry for information on this subject. If they could only go to people who are charlatans, who were going to give them cultism and not scientific findings--what can be done, what can't be done, what we know, what we can validate, what we can't validate--if they can only go to those people, the university isn't fulfilling part of its original purpose in the community.

This is a change where I'd like to see the university move back and not ahead. Universities originally were established not only to give out knowledge but also to do research and to generate new knowledge. I see one of the clear responsibilities of a university, a school of allied health, as exploring the new. This was what happened at Georgia State when people came running to the classes--they wanted to know. I think that you'll find that in your social life or even at your work you may be dealing with people who are bringing up things like this. They're bringing up questions: Do you think there's anything to this mind-over-matter thing? Do you think people really have auras around them? What's an aura? Do you think people can really bend metal by thinking about it? Is that Uri Geller really for real? Arrow Shirts are even doing a commercial where they have a spirit come out and she likes the guy who's got an Arrow shirt on. These questions are questions that indicate people are really asking, "What am I? What is my human nature? What am I capable of? What areas are there in my mind that haven't been explored yet? Where can they be put to use in my profession?" It really is something to stop and ask that, but something else too to be willing to listen and hear some of this. It puts an awful lot of responsibility on you. If you can really affect your state of health with your thoughts, to maintain it or to help--if you have that power, you also have the responsibility to use it. And that's heavy sometimes. It's a heavy thing to carry. It's never in lieu of medicine; it's another tool of the allied medical field that you can use, and that patients can use.

Now, something you can think about is what if people really do have auras? Maybe some of you know what an aura is, maybe some of you don't. An aura is a bioelectromagnetic field that surrounds all things, animate and inanimate. Around living beings, it fluctuates and moves. And you can learn to see it in five minutes. It's not hard to see. Maybe the reason that some of you haven't seen auras before is functional blindness. You can be looking at something and look right around it. I'm sure that you know this. The aura is something that is very promising in the health field. A lot of researchers right now are doing research into the aura as a diagnostic tool. Disease reflects itself in the aura even before it becomes strongly manifested in the body. Now, I'm not just saying this; many, many research projects show this. The aura has been photographed by Kirlian photography, where a high intensity electric field is placed between the subject and the plate; and you get this beautiful aura of color around the person. By the pattern and the brightness, you can tell about different diseases in the person. It fluctuates and changes. It's very interesting to note that some of our sayings like "red with rage" are true. When people are angry, the aura really does get red. There's another thing, too. If you've ever heard of somebody being half-lit or having a happy glow about them, well they've shown scientifically that you do get a rosy glow when you drink. Some graduate students will volunteer for anything. In one study, they had a student drink a couple of shots of scotch or bourbon, and then they took pictures of his fingertips. Then he had more drinks, and more photographs were taken. Well, as the photographs were developed, his aura got rosier and rosier and rosier. He was lit--he was glowing in the dark. This is something that again you could put with scientific methods and come out with a measurable thing. It shows. They've taken pictures of a broken leg, and it's very different from a picture of healthy tissue. One of the areas that this is being used for now is in the area of plants. I don't imagine that many of you treat sick plants. But some people are going out and taking pictures of plants and auras, and are able to tell before disease comes into them and pretreat them. It's preventive medicine. Just recently at the AMA convention in Atlantic City, the science award went to a young woman for some work she had done with the aura with photography. They saw it as a method of detecting cancerous tissue. OK, so that's one way the aura can be used like that. You all have them; maybe you can go up tonight in your rooms and look at your auras in the mirror--I'll show you how to do that. And you can watch other people and their auras. I'm completely entertained in waiting rooms just by looking around for auras.

Now, again, this is a brand new area. It's new in many ways. It's new because people who haven't paid attention to it before are paying attention to it now. Before, this whole area was too shrouded in mystery and the occult, and it was put in a kind of hinterland. There's nothing mysterious about it. We only need people who look at it, look for the reasons behind it and organize the findings so we can use them in a very helpful way.

Another area of interest to the health field is clairvoyance. This may involve cognitive dissonance for you, but at least listen for a minute. Now, I'm not talking about Jeanne Dixon, about "who's going to be elected President," or "what's the stock market going to do?" I'm talking about a faculty that you have in your own mind--a faculty of the mind to span time and space. Now, that's not really so far out when you think about the fact that we really have kind of a nutty definition of time anyway. Maybe the best definition of time that somebody could come up with is that time is man's way of ordering events. We make time. We cut it off and cut it short, daylight savings time and all that. Suppose man does have an ability to use another level of his consciousness to go back into time or to go ahead into time and to be able to get information that way. How could that information be used in your profession? Could it be used in research, as another possible tool for research? Maybe it could knock some time off the search for an effective cancer treatment. If it only knocked a week or two off, it would be worthwhile. It's not a cure-all; I don't have any panaceas, but they are different tools that you will have to figure out how to adapt them to your particular area. Clairvoyance is another one.

Another area that I am very, very interested in is sometimes referred to as dermaoptics. I just recently finished my Ph.D., and I just got through that monstrous thing called a dissertation. I had a nice title for the dissertation. I was calling it "Dermaoptics"--one word. You know they won't let you have one-word titles. The title finally came out so long that they couldn't fit it on the binding of the book. It came out with three dots, and what they have on there makes no sense whatsoever, without the rest of it. But my interest was, "Can you teach a blind person or a visually impaired person to distinguish colors without the use of eyesight? Is there some property in color? Is there some property in you, whereby you can learn in a different way?" You're not a closed system, and the senses are more than channels for sensation. Your five commonly accepted senses are really perceptual systems. They are not mutually exclusive; they are integrated and they work together. You can learn to use them more effectively. I bet there isn't one of you out there who doesn't watch TV and read at the same time. You know you can do it. You've done it. And you wonder how you're able to listen and do this at the same time. I'm not saying you get perfect attention with it, but you know you can do it. This is the idea that I've had with blind people.

Some of you may see where a lot of my interest in this area developed, but my interest is also in the field of education in general. How man learns, what man is, who I am, what areas are available to me to expand my knowledge. I've worked with quite a few people who have congenital blindness and acquired blindness. I've found out in working with these people that they can be taught to distinguish colors by touching, without any eyesight. Well, the dissertation was at the 0.001 level. One out of a thousand times, it would happen by chance. That's kind of fantastic, when you think about it, that color has some kind of properties. Gibson at Cornell called it integrated sensation. He was interested in whether or not colors have inherent properties--invariants--which are independent of other conditions--light or darkness, hot or cold. These properties are there. They're like going right to the source.

You can teach a person, then, by teaching him to use integrated senses to pick up on these invariants. They can learn then to distinguish colors by touch. You could learn if you wanted. You may not be as motivated to learn as somebody who can't see, but I present it to you to think about the way man learns. If man can pick up information about color through tactile sense, could that help slow readers? Could it help some of the people you work with--exceptional children, exceptional adults, persons with learning disabilities? Can it help those who are working with different people in, say, nursing? I've found that not only can these people distinguish color with their fingers, they can "see" pictures like this. Even a picture from a magazine--they can tell you what's in it. Now, I'm not saying this happens overnight, but you'd be surprised. I've put pictures in a sealed envelope, and I've had people in my class who can tell you what's in the envelope. There are no tricks to it; it's just learning to use a faculty of the mind that hasn't been used before. It opens up all kinds of magnificent possibilities in the field of education and in the field of change. To some people, it's scary. Some people will say that man is not supposed to do that, that it would have been in the Bible if man should read through envelopes or whatever. I don't know; I'm not a theologian; I can't tell you that for sure. But, in anticipation of anybody who's going to come up to me (because I've had this happen before) and ask me if I know what I'm really saying, that I'm almost going against God, I'm going to say to you something else. If man is made in the image and likeness of God, then everything man does to discover more about his own nature is, in a way, praise of God. It has to help; it can't hurt. You have to know yourself. Can you imagine being able to distinguish pictures through touching them? Isn't it amazing that people can get information like this? Not only pictures; they went a step further, too. They can hold their hand on that magazine article and tell what it's about. They can't read word by word, but they can tell you what the article is about. Now, when we talk about why Johnny can't read, we talk about comprehension. If we can get comprehension this way, it's amazing. It's amazing in what it says about you. Think about it for yourself, and then think about where it could be applied. There are fantastic possibilities.

Think about another area, too. That is the area of relaxation and meditation. When I was in high school, meditation was something that nuns and priests did. And it wasn't any fun. I can speak to that from experience. I spent two years in a cloistered convent, and meditating at 5:30 in the morning was never a kick. I guess that's why I didn't stay. But now, I doubt that you'd find many people who are not conversant with the term meditation. And they talk about it now not for a religious experience, but maybe an experience of themselves or to do with health. We live, as you well know, in a world that's full of stresses. We're kind of squished in on all sides. Stresses come at us from all different ways. There's an MD by the name of O. Carl Simonton in Fort Worth, Texas, who uses meditation and a process known as visualization that uses the energy of thought to affect molecular structure in the body. He uses this to augment (as an additional tool to this regular techniques) cancer treatment. He takes people that medicine has said, "No hope--you know, 99% chance they won't recover. This is cancer; they can't be cured." And he's getting cures. Now, you're faced with this, and here again comes cognitive dissonance. You say, "I don't have a place to put this; I don't have a cubby hole. What do I do with it?" You've got to create one, I guess. That's part of growing and changing. If you can't grow, you have to change; and that's part of it. Just the act of getting in touch with yourself--taking the time, being selfish enough to give yourself ten or fifteen minutes a day of quiet time when you really get with yourself--cuts down on stress. Now, again, I'm not just saying this. You can go to the research that's been done at Harvard, at Yale, at Stanford Research Institute--a lot of different places--and find that when they used electroencephalographs and different kinds of monitoring equipment with meditators, they found that the blood pressure was lowered significantly with regular meditation. For those who meditated habitually, the lactate level in the blood (which, you know, is the index of anxiety) went down; the meditators just seemed calmer. I ought to warn you on this--meditation is habit forming. You get to like it. It's just kind of a nice, quiet thing that leaves you with a tranquil feeling. You don't get upset as much as usual at things that happen. When you've got a program coming up and three people haven't shown up that were supposed to speak, and you're pulling your hair out--meditate, and you'll only pull a few hairs out. It's not a panacea, but it helps an awful lot. Simonton says that we've got two alternatives in the world we live in--to live with this very stressful situation and have it tear us apart, or learn to meditate. We can learn to use our very natural ability of recuperation, of directing the mind with visualization, seeing ourselves well, of being quiet to give that wonderful recuperative power of the body and the mind time to work. We can let this work for us rather than against us, I think. It's an interesting idea.

One other thing that I do in classes at Georgia State is teach people to lower their blood pressure. You can learn that very fast. You hear of a lot of people that suffer from hypertension--they can have a half-hour's training and learn to lower their blood pressure as much as fifteen points, just like that--one, two, three. I've done it many times in classes to demonstrate this--up or down, it doesn't matter, whichever way you want it to go. That's the power of your mind. Did any of you see that program that was on TV, "The Incredible Machine," where the gentleman used the power of his mind to run an electric train. Psychology Today had it on the cover of one of their issues a while ago. They hooked him up to a machine similar to an EEG, connected it to a toy train, and with thought, he ran the train. Just think, you might be able to put Georgia Power out of commission. Isn't that terrific?

There's another area, too, that I want to present to you, an area called telepathy. Now, you're thinking that's for stage acts. That's where somebody's going to tell you what you're thinking--that's for magicians on stages. It can be for that. I'm sure many people use it for that, but I present it to you in a very different way. I present it to you with the idea that what a wonderful thing it is if, indeed, we can communicate from mind-to-mind without any spoken words or body language--purely mind-to-mind. It has been said that "words are the source of all misunderstanding," and if we can really communicate mind-to-mind.....think about it! People talk about a universal language of communication--fantastic possibilities! In classes at Georgia State, I've gotten people from various language departments to write down and to send words in way-out foreign languages like German, Thai, Portuguese, things like that. And the people didn't know they were being sent in foreign languages, and they picked them up in their own language--in English. So, could telepathy be a possibility as a universal communicator? Words get out of the way then; you don't need them. How about telepathy for working with special children? If we have kids with learning disabilities and people that are considered mentally retarded in some way, perhaps it's one area of the mind that isn't functioning. Can we reach them on another level? I offer you as a challenge, again, the idea that these children can learn if we can learn to teach them.

And you're teaching the people that will be teaching them and working with them. Isn't that worth looking at? I can't give you a positive 100% stamp of approval that it's going to do it. Again, it's not a panacea. I don't have that; I don't believe in that. But the possibility of it presenting some help is too great to ignore. Take the area of deafness. Now, I have done research with telepathy with the deaf and found that it would be very worthwhile going into, to do further studies. The possibilities are very great. I had some students when I was teaching at Emory Nursing School in Atlanta who used it with patients who were in comatose states and felt they did get some reaction, that they had gotten through, communication-wise. These were senior nursing students. Again, these are interesting possibilities. You've got to be, again, comfortable with your uncomfortableness. You've got to be willing to make a commitment. Maybe there isn't anything new under the sun, but I think there's a new way of seeing things. I think as we grow, we gain different perspective of things; and this is what presents the newness. If a person comes with a new idea, it isn't so much that he's gotten something out of nothing; it's that he's seen it from a different angle. This is what I'm asking you to do--to look from a different angle at some of these things, at the possibilities they present. Let your mind play with the ideas where they might fit into your area. Maybe you'll decide they'll not fit in at all--that's up to you. But at least you owe yourself, and you owe the people you're going to be working with to look and think about it. Now, I want to see if I can show you an aura before we go on. I want you to have a chance to ask questions.

To show you the aura, I'm going to ask you--I'm going to have the lights turned down some. It's not that I've had a lightbulb hidden in my pocket or anything like that, that I have a wire that will light up and glow. It's the idea that the part of your eyes that is particularly sensitive to this emanation is the rod of the eye. The rods, as you know, are better activated in dim light. Once you know what you're looking for, it doesn't matter what light there is; full light doesn't matter at all. There's something else I want to show you while we're doing this. I want to show you about thought and that thought is a thing. I want to make an attempt at using myself as a sort of a screen and bounce some images off me that you can see. Now, I will ask you while we're doing this--I'll say, "Are you getting anything? Do you see anything at all?" I would ask you to say yes or no. I don't want to suggest anything, but I would like some feedback so I'll know you haven't all left the room and gone to lunch--"The lights are down; let's get out." But just say yes or no, this kind of thing. When I do this image thing, again, I might ask, "Are you picking up any change?" Just give me a yes or no. Give your eyes a chance to accommodate. If you can't see, I'm going to ask you to move up closer. I'm going to ask you to look at my forehead and look around my shoulders, but don't cross your arms. We know that is a defensive pose. Don't do that. It crosses up the flow of energy through your body, but if you think you're seeing something and you're not sure and you want to move up closer, move up closer. Don't feel bad about it. Look now around my head and around the hair and around the shoulders; see what you see now. Now, I'm going to do some deep breathing and I want you to keep watching around my head and around my shoulders, and let's see if you pick up any difference. OK, watch right now at the crown. Anybody see anything different? You may have to move up. All right, can you still see it? Look now again around the head and around the shoulders. Now watch again while I take a deep breath. I want to show you how you can control this. Watch again, at the crown, particularly. All right, I want you to do something now. I want you to watch my face. I'm going to keep my eyes closed, and I just want you to watch my face. I'm going to keep my eyes closed, and I just want you to watch for any changes you might pick up, OK? I'm going to move out toward you a little bit. Is anybody getting any kind of change? (responses from audience) Come closer, you people in the back. Now, let's see if I can make it stronger; some of you are saying yes, some are saying no. Getting anything now?

If you can't get it, move up closer. All right, why don't you people who are seeing something look particularly now at the face and particularly at the area of the eyes and nose. Anybody seeing open eyes? (responses from audience) My eyes are closed; you can come close if you want and see. How is this? This is strong now. Look at the difference in hand size. Power of thought, power of mind. Suggestion? No. We'll see if everybody is seeing the same thing. This can also be picked up on TV video tape. It's very hard to suggest to the camera. Will somebody give me the name of a person, preferrably deceased--just a full name. Don't make up a name. If you give me a made-up name, I'll make up an image. Just give me a full name and let me see if I can bounce that through. Michael

Williams? How about a middle name? Michael Clay Williams. OK, let's try it. Michael Clay Williams. All right, I want to say some things to you while I'm doing this, but I don't want you to answer me while I'm doing it. Just keep them in mind. I think of the death month as possibly June. I feel it has something to do with the spleen. It's this area here; seems like it was hurt in some way or crushed or something. October seems to come in as something of particular significance in the person's life. The state of Arizona comes in; this person may have lived there or may have had some very significant connections. Are we getting anything at all? If you are picking up any features, will you please remember what you see, OK? Because I'm going to ask you afterwards. There's something wrong with his hand, too. When I hold my hand up, see if you see anything on the hand; it's in this area. It feels almost as though his neck might have been broken or something like that. OK, I'm going to try one more with this. I'm going to think of the person. Let's see if you can see who it is. Getting anything? Anything else? (response from male in audience) No, I just want you to tell me if you are seeing anything different. Are you picking up the aura at all? (responses from audience) Some say yes, some say no. All right, the people who aren't, let me suggest something to you. Look around my hairline. If you think your eyes are fooling you, just look away and look back. There's no trick to it. Let's see about the aura. The aura should be pretty strong now. It depends on the energy you have going with you. OK, we'll try one more time here. Look for the aura around my body. I've still got my eyes closed. Look for the face. Got any aura now? (responses from audience) The guy over here who's saying it really loud, come over here in front of me--special attention. Stand about over here at arm's length. I've got my eyes closed so I can't see you. Are you here? Are you supposed to stare? No, you don't have to. I don't want you to do something where you think you're producing. It's not an after image; this can be measured. It will run through a magnet also. All right, watch here. Just let your gaze go around the head and the body. Not picking up anything? (responses from audience) Light green. How about his face? You can distinguish that? All right, let's turn the lights back up. Those are my eyes. All right, let's see what we've got. Let's deal with the cognitive dissonance.

Discussion

Audience There was a yellowish-greenish--I don't know why it was happening, but your eyes were what I saw. I wear contact lenses, so maybe that had something to do with it, but your eyes were iridescent.

Monahan My eyes were closed the entire time.

Audience They looked like big, green areas.

Audience Did you have your glasses on?

Monahan No, I didn't. I had my glasses off and my eyes closed. Weren't there.....

Audience I didn't see your eyes as much as I saw your forehead and this part of your face.

Monahan OK, all right. Anybody else?

Audience There were different kinds of pinpoint light up there.

Monahan I think that what you're experiencing here--this often happens the first time somebody's exposed to this. What happens is that you try to figure out, you try to make way for that cognitive dissonance. You try like the devil to figure out a reason why you have seen what you have seen.

Audience I couldn't see anything until I removed my glasses.

Monahan And when you removed them..... I don't know what that is. But like the lady who mentioned the contact lenses, many students, when they do this for the first time, will say, "Maybe I have eyestrain" or "My contacts need cleaning." Some people are sure it's after image. That isn't it. Whatever this is, it will run through a magnet; it has properties; it has mass. It can be photographed. It's a real thing. How about somebody else--what did someone else see?

Audience I could see a change in the intensity of color of the aura; with your deep breathing, it seemed to deepen. The outer edges became very dark. The whole body was silhouetted.

Monahan The aura surround the whole body. How about some people over here?

Audience It looked like you had a mask on, and the mask changed in color. It looked like the reverse of a negative. It changed; it didn't stay the same.

Monahan The reverse of a negative--like the negative. How many people agree with that? Just put your hands up. How many people don't agree with any of this? OK, we've got some brave ones back there. Very good.

Audience I want to ask you a question. What about the lady who asked the question about a person?

Monahan Yes, we're going to get to that. Now, if you want to describe any features that you saw, if you got any features when I said Michael

Clay Williams, how about being brave enough to say what you think you saw?

Audience I saw an enlargement of your figure--taller, broader, taller in stature. In terms of the hand, I saw scarring of the hand, slenderization of the neck and shortening of the head.

Monahan Anybody else?

Audience I thought I saw military flaps on the shoulders.

Monahan You said you saw essentially the same thing.

Audience Except I saw the image of hair or a beard--sideburns, I thought.

Monahan OK, anybody else? This is without suggestion. I want to get all your opinions out before we ask the lady what this person really looked like.

Audience Also, it looked like there were only about three fingers on the hand.

Monahan Anybody else? How about both hands?

Audience I saw a different shape nose.

Monahan You mean different from mine. OK, lay odds. What did he really look like?

Audience A little six-year-old boy who died of meningitis one day after his sixth birthday, so the hands had nothing to do with it.....

Monahan Was the name a junior? No, OK. When did he die?

Audience September. He was born in June.

Monahan I had June as the death month and October for the other. It would be interesting to know whether he had trouble with the spleen; does anything like that go along?

Audience You did mention the neck.....

Monahan The neck? Broken or sprained or strained?

Audience That's what I thought you were heading for.

Monahan But the pain in the spleen was very prominent, too. Sometimes..... if you get something up, it works all the time. But this doesn't; it's not infallible. I think it is interesting, though.

Audience Did you really experience a pain in the area of the spleen?

Monahan Yes, I did. You know, there's a neurologist by the name of Dr. Norman Shealey who's using clairvoyance in clinical diagnosis; not exclusively, but as an aid to diagnosis. He's getting some pretty good results with some of the people he's working with.

Audience Is it possible that when you asked for a name, and other persons were thinking of a name, that those suggestions could have overridden the particular one that was given to you?

Monahan OK, since you brought that up, I'm going to give you the straight line on it. I don't like to try, and I'm not trying to now, I'm answering your question. I don't want it to look like I'm trying for an easy way out when something doesn't seem to work. But this is very similar to a radio receiver. You all are giving off signals. My job up here is to tune out the others and home in on the signal, very much like an FM station. It's harder to do sometimes than others.

Audience The reason I asked the question is that just before she said the name, I would have said a name of a person who died in an automobile accident with a ruptured spleen and a broken neck and did have one hand--the hand wearing a certain ring--very severely mangled. He was tall.....

Monahan I'm going to take a real big change here and ask if the guy's name was Charles. The other man was Charles, right? That's what comes to me with that. You can take it for whatever you want. If you think that can be coincidence, you can knock it down to that.

Audience Could that be a sign that my transmission was poor?

Monahan Could be. Could be a sign that my receiving was poor. You can't tell. Think, though, about using this in your own field. Think how amazing it is. Just think of the fact that some of you have seen the aura, that you really have an electromagnetic force around you--energy--and that you can control *the force of the energy*. People talk about laying-on-of-hands--you can actually transmit energy from one person to another. Fantastic! Think about it then--the power of thought, that some of you said it looks like a mask. I didn't want to say it to you ahead of time, but it often looks like I've blanked out completely, like I just disappear and everything goes white. It looks sort of like a white mask-type thing covering the face. I could have told you that ahead of time, but that would have been preparing you to see it. I'd rather have you see it first, report it, and then we talk about it. I think there are some things for you to think about. What do some of these areas have to offer to the health profession? To education? To you as a person? Any other questions? Yes.

Audience Did anyone else get the signal about the fact that this was a child? I did, but I didn't say anything because it was so foreign to what everybody else was saying. I was a coward. But that was the *only* impression I got--the fact that it was a child.

Monahan I'm more inclined now to believe that I had been worrying with this fellow back here. Oftentimes, that can happen, you know. As I say, you can tick off one thing and say "coincidence" but if about five or six of them all come together and fit, it kind of gets a little tougher to count off as coincidence.

Audience How do October and June fit into his?

Monahan Yes, how do they fit into yours?

Audience They don't really, except the birth date in October.

Monahan It's interesting that I had the birth date right on that one. I said October for birth date and June for death month on the child, which was the birth month. All right, this is where we need a lot of research in getting this thing straightened out. This is a pioneering field. But think of the possibilities. How fantastic! Think of the areas where, say, no hope or not much hope is offered for the retarded or learning disabled now. Think of some of the projects you could have. There are pilot projects now. But that's what it's about. The pilot project is an innovation to see if these are ways that can be adapted to helping some of the people who haven't been helped up until now. Dare to look through the telescope, and thanks for listening.

UTILIZING INFORMATION STORAGE AND RETRIEVAL SYSTEMS

Leslie Wykoff

Retrieval Specialist
Library and Information Center
Northwest Regional Educational Laboratory
710 S.W. Second Avenue
Portland, Oregon 97204

If you are interested in the ERIC idea, you should contact the largest university in the state which has an ERIC collection and ask who is doing computerized searches in the region. I want to give you, first of all, an overview and then give you these handouts* for future reference.

Information retrieval by computer is an outgrowth of, and a response to, the fact that information is proliferating so fast that people are no longer able to keep on top of it by just going to their local library. Not everything is in a local library; the libraries are not funded to subscribe to or buy a lot of very sophisticated kinds of things. So many libraries are deciding to become either very general or very specialized. The trouble is that your library may not be specializing in your particular field. So, at least two very large systems and a number of other people around the United States are creating computer tapes of what were initially indexes and abstracts, like Psychological Abstracts and Dissertation Abstracts. These have been around for a long time. If you wanted to research somebody or something, you would go to the library and look it up manually, using these abstracts. But now that process is being partially automated. The information is being put on computer tape, and people can access it by terminals at high speeds--much faster than it can be done manually.

---

*See pages 172-215.

Note: The section following is an explanation of the acronyms used for various computerized data systems.*

The two systems that are most competitive, and also the largest, are Lockheed Corporation's Dialog Information Retrieval Service and System Development Corporation's Search Service. Lockheed seems to be leading the field in collecting data bases. I've separated these two systems on this sheet (see page 172) into groups that are comparable. The top section on the Lockheed side is primarily the area that I search: primarily social science data bases. ERIC is in both systems. Dialog has Exceptional Child Abstracts which come from the Council for Exceptional Children. It deals with both physically and mentally handicapped, as well as the gifted and talented. AIM and ARM--you Occupational Ed people know about the Abstracts of Instructional Materials (AIM) and the Abstracts of Research Materials (ARM)--are out of the Center for Vocational and Technical Education at Ohio State University. This is included in the ERIC collection, but one does not retrieve documents out of the AIM/ARM collection by searching ERIC; one has to search the AIM/ARM file separately. In other words, the AIM/ARM microfiche are included in the ERIC collection, but you have to access it through a separate data base.

The Social Science Citation Index (SSCI) is a very important index, especially for people who are doing doctoral work and really want to make sure they've covered their field. It is an index that one would approach this way: you have a fantastic, perfect article by

---

*See page 172.

Dr. John Jones. What you want to know is, "Who else has cited John Jones' article?" The theory in information science is, "If they've cited John Jones' article, theoretically, they're going to be talking about the same thing that John Jones talked about." One can retrieve those documents and see if they are relevant. I usually recommend to my patrons that they do a Social Science Citation Index search after they have done searches in other data bases; or if they do not have the money to do a large, across data base search, that they do manual searches and then come in with two or three leading authors. It will cost them maybe $10 to take a look at "who cited whom?"

Psychological Abstracts, next in line, go back to 1967. It is a very difficult data base, in my opinion, to search by computer because their indexing has not been consistent. One usually does depend upon a logical manipulation of descriptors and consistent usage of descriptors when one is searching by computer. However, it still is handy. If you don't mind getting some "garbage" in the search as well as your good hits, it's worth the price. ABI/INFORM is abstracts of business information; it's headquartered here in Louisville, Kentucky. It is presently the only data base that is indexing business administration journals from all areas. That means hospital administration as well as corporate kinds of things. We are finding that there are curriculum materials in ABI/INFORM, in the sense that corporations are running small workshops in-house on certain topics, such as energy, sexism, racism. Business is very busy out there developing materials which can be adapted for classroom or for inservice purposes. It is not the focus of the data base, but there are most likely documents in that data base on hospitals. If they are subscribing to hospital administration journals, and if those kinds of articles appear in those journals, they will be in the data base.

PREDICASTS and Economics Information Systems are related in the sense that statistics and forecasting are related. COMPENDEX is an engineering index.

National Technical Information Service (NTIS) is an important data base for you to know about. It collects a great deal of government research that's done by the Department of Defense, which has done tons of work on career ed. Also, there are an awful lot of these quiet and secret large contracts that go out to places where they think about things, and these resulting documents are put back into the system in NTIS.

Now, jumping down to Science Citation Index--that's the same thing as SSCI, but for the sciences. Those of you in science and medicine who feel that your area might not be adequately covered by Med-Line or Index Medicus might want to try Science Citation Index.

Next is a brand new one. It isn't new--it's been around for a long time, but now it is available on-line. It's Dissertation Abstracts. Lockheed tells me that soon I will be able to push a button on the terminal and tell the people at University Microfilms (who own Dissertation Abstracts) that I want this particular dissertation mailed to me. It will all be done in one process, so that my requestor will be standing over my shoulder saying, "I want that one!" and I can punch the button and it will be mailed. Isn't that wonderful? That will really simplify the whole business of interlibrary loan and other kinds of things that people don't bother with because it's so irritating.

Beneath that are Meteorological Abstracts and Oceanic Abstracts. Biosis is the Biological Abstracts, which interfaces in some areas with Index Medicus. CA Condensates is Chemical Abstracts. The last two are very important to people who are trying to find money or get projects going--Foundation Directory and Foundation Grants Index. I particularly recommend the Foundation Grants Index. It lists by quarter or year what foundations have given what money to what group for what purpose. For example, Ford Foundation gave $10,000 to our such and such public library for construction purposes. So, you can get a good idea of what the focus is for the foundations, what they seem to be giving money for. I recently searched this data base for a gentleman in Portland Public Schools who wanted to get a project going on engineering education for minorities. He wanted to know who was funding that kind of thing. We came up with lovely information for him--very helpful. (End of acronym explanation)

This list* of comparisons is important. Give this list to your librarian. If she hasn't seen it, it will be valuable for her to have, just in terms of consciousness-raising. This information-retrieval thing is known by some librarians. Most librarians are not information scientists and they are nervous about the technology. They also resent very much the idea that they might be replaced by sophisticated equipment. They have to be gently introduced to the whole concept of information handling and information retrieval if we are going to change their minds. Most librarians want to know about it, but they're not going to want to be involved in it. It's up to the user--the educated user--to demand this service.

---

*See page 172.

(Question from audience about local procedure)

If their library has a contractual agreement with System Development Corporation or Lockheed, they can get searches. The Office of Education puts out a guide, a survey of ERIC data base users. I didn't bring one along, but if you'll write to me, I'll make you a Xerox copy. They're going to put out a new one, in June of this year, I think; and that will be up-to-date. It's very helpful. It goes state-by-state and shows who has access to this kind of information service.

Now, I want to give you some more information on the Foundation Directory and Foundation Grants Directory. I think it's important that people know about private funding since the government is tightening up on money. This is a more in-depth explanation* of the data bases that are available through Lockheed's Dialog. It tells costs, how often they are updated, and that kind of thing.

I went up to the University of Oregon Medical School Health Sciences Library and told them I was coming to this conference and really needed some background information on Med-Line. I do not search Med-Line, but I knew that all of you would be interested in it. They gave me several things. One of the things that I thought you might be interested in, for your background information, is a list*, by region, of those organizations that do search Med-Line, and the number of searches that they do. This should be helpful in many different ways. These sheets*, done by the University of Washington Health Sciences Library, explain what Med-Line is and how to think about searching. The third sheet is more for the University of Washington library, and I would ignore that. This sheet* gives more information about the format of Index Medicus. If you do Med-Line searches, you might not understand what your search statement means. This breaks it down and explains it to you.

---

*See pages 174-178, 179-184 and 185.

I talked a little about the Exceptional Child Abstracts done by the Council for Exceptional Children (CEC). I think a lot of people in the allied health area are dealing with handicapped people. CEC offers computerized, customized searches on demand. All you have to do is call them at a toll-free number, and they'll do a search for you. It does cost money, somewhere around $20 per search. I recommend that you do that. They are experts in the field. Here is their information folder.*

The next thing that I'm not sure many people know about is that the American Association for Higher Education has a resource data bank. It does not supply people with documents. It supplies people with names of other people who are experts in the field. In Portland, we have what is called a service exchange, where a carpenter can call up and say, "I will do carpentry, but I need some dental work done." And a dentist may have put his name into the service exchange, and so they can exchange services without money. This is kind of what this data bank is like. Suppose you really need somebody to talk to you about continuing education programs in nursing. You could call them up and say, "Do you know anybody?" And they could say, "We'll look that up and see if anybody's willing to be a consultant on that, to share information." It's a super cool idea! It's something that librarians and information people are just passionate about. Librarians and information people certainly cannot be subject specialists in every field that is demanded of them. So, when we have a system like NEXUS* from the American Association for Higher Education to depend on, it is lovely. One of the things I say to almost everybody who comes into the library is, "Give me a call. I may not know a thing about what you're talking about, but maybe I know somebody who does know something about it." That's what we *try* to do, anyway.

---

*See pages 187-190 and 191-192.

Now I'm going to talk about ERIC, which is the data base I was searching earlier this afternoon. It is searchable manually. I don't know whether any of you have ever used it manually. It comes out in the monthly issues of both the *Current Index to Journals in Education* and *Resources in Education*, which is the documents index. The document collection is subscribed to by a great number of universities, community colleges and state departments. I've brought you an updated (as of September, 1975) listing* of all of the locations of complete ERIC collections. If you want to do a computer search, you could call me or find somebody who'll do them for you. When you get back the search, it will be a computer printout. You take the accession numbers, go to the university, find the ERIC collection, pull the microfiche, and look at them on their readers.

One ERIC document which contains approximately 90 pages would cost 75¢. You'll have to order your ERIC documents (if you want to own them) from the Educational Document Reproduction Service. It's a somewhat cumbersome system, but there doesn't seem to be any other way to do it. You can order hard copy; they just Xerox it back there, and it costs quite a bit more. On the back of this order form*, it tells you the price of microfiche and hard copy per number of pages.

---

*See pages 193-194 and 195-210.

(Question or comment from audience)

A lot of people (and I happen to be one of them) really resent microfiche. I just find it irritating (I like to carry a book on the bus), but it is efficient.

It's very important that you understand, as a user, the structure of ERIC. ERIC is called a centralized/decentralized system. It has central facilities in Washington, DC. Its Clearinghouses are located around the United States, usually in university settings which have a specialty in the subject area of the Clearinghouse. For instance, the University of Oregon has the Clearinghouse in Educational Management because the University of Oregon offers a program in educational administration and policy management. The Council for Exceptional Children has the Clearinghouse on Handicapped and Gifted. This* is the updated listing of addresses and phone numbers of all the Clearinghouses. I recommend that if you have a subject interest which is covered broadly by any of these, you write to them and ask to be put on the mailing list.

Clearinghouses are charged with indexing and abstracting those documents which come into them. It is a rule that the final report of every federally funded education project must be submitted to ERIC. They also index and annotate magazine articles in their field.

---

*See pages 211-212 and 213-214.

They also produce information analysis products, so that each Clearinghouse is trying to stay updated and to keep their audience updated. They are producing bibliographies on community schools. I won't be surprised if the counseling and guidance group, or maybe the early childhood education group, very soon puts out some kind of "state of the art" paper on death education, because people are beginning to wonder, "At what grade level does one start talking about this?" Or values clarification. That is the heaviest topic! How does one teach about values without teaching values? The Clearinghouses are charged with taking a hot topic, doing their own literature search, writing a state-of-the art paper or a review of the literature, and then adding an up-to-date bibliography. If you can't afford to do a computer search and you do want to stay up-to-date in your field, correspond with the Clearinghouse that probably would be the receiver of the information you are most interested in. They will tell you when they are publishing their information and state-of-the-art products.

The last thing is that if you need help, call or write me and I'll try to help you. Most likely, I'll say, "Did you know that there are people in Kentucky who have been working on that? The name of the person to call is ________________."

Now, I'll demonstrate the procedure for an ERIC search. ERIC uses a controlled vocabulary thesaurus. Every single descriptor that is used by ERIC has passed through a review panel, which agreed that it is indeed a word that is used by educators. Tests show that an indexer may not use the same descriptors to index an article now as he used to index that same article three months ago. This really is a problem, especially for those trying to retrieve information in a systematic manner. In training indexers, it should be required that they go back and retrieve those same articles that they've indexed. Anyway, the thesaurus uses a controlled vocabulary. The indexers have to use those words appearing in the thesaurus. In trying to get a search that is pretty complete out of the computer, you use a strategy which can be described by a Venn diagram*, and the strategy is called Boolean logic. This is essentially set theory.

Suppose you are looking for instructional materials. An article, depending on the indexer, may be indexed as "instructional materials," or (more alert) indexed as "audiovisual," or (really awake) indexed as "slide/tape presentation."

In planning your computer search, you need to zero in on what you are looking for. Let's say you're interested in instructional materials. What kind of instructional materials? Do you care for this kind? Do you want these? Don't you want these? The computer has the capability of saying "not"--not this stuff--as well as "all this stuff." It selects out what you do not ask for, in addition to "selecting in" what you do ask for.

So, you take sets one, two and three, add them together and this becomes set four, which is a large concept group for instructional materials. There may be many more than this. Sometimes, I pile up 15 or 16 synonymous terms. Maybe you want instructional materials in voc ed. Now, along with vocational education, there is career education, although it has a different feeling than vocational education. There's also occupational education, technical education, industrial education, and on and on. Again, you have to focus in on what you want. Do you want to include career ed? Or do you want to exclude it? You have to decide.

---

*See page 215.

OK, now, we have a set containing documents about voc ed, technical ed, industrial ed. At this point, there are several things that you can do. You can get it very specific. We can say, maybe, we only want to deal with welding. If you only want instructional materials on welding, you may not need to delimit it by Voc Ed.

There is one thing you need to know. It is now possible to save your own personal profile on the memory of the computer. I am interested in bibliotherapy. So, I save in the memory bank of the computer the concept "bibliotherapy." Then, every month, I play my profile against the updated tapes and retrieve all of the current information from the last month's inputs to data base. This is called SDI--Selective Dissemination of Information. I suppose that in resource or information centers, your librarians are making a bold attempt to do that manually. I try to do this manually for my staff because a great number of our people feel they can't afford computer retrieval or don't understand it yet. I peruse 400 magazines and try to match those articles with my staff. The computer can do it quickly.

Now, we'll do a computer search, using the terminal at the back of the room. If you have any topics for which you want a computer search, I will do them for you. By the way, cost for an ERIC search through me or through the lab is about $17. We do not make any kind of profit. We simply charge the user what we are charged by Dialog. Some organizations are subsidized. For instance, our medical school in Portland charges $5 per search, no matter what the yield is and no matter how long you are on-line, because they are subsidized. The price for a computer search varies all over the United States. Now, what topic shall we ask the computer to search for us?

NOTE: At this point, Ms. Wykoff demonstrated a computer search for those members of the audience who requested it. Each requestor observed the process, from selection of descriptors to completion of the computer print-out.

COMPARISON OF TWO INFORMATION RETRIEVAL SYSTEMS

LOCKHEED	SYSTEM DEVELOPMENT CORPORATION
ERIC	ERIC
Exceptional Child Education Abstracts	
AIM/ARM	
Social Science Citation Index	
Psychological Abstracts	
INFORM	INFORM
Predicasts	
Economic Information Systems	
	Congressional Information Service
	American Statistics Index
COMPENDEX	COMPENDEX
NTIS	NTIS
CLAIMS GEN (Patents)	Derwent Patent File
INSPEC--Science Abstracts	
ISMEC	
	SSIE
Science Citation Index	
Dissertation Abstracts	
	APILIT/APIPAT (American Petroleum Institute)
	Petroleum/Energy News
	Tulsa (Petroleum Abstracts)
	Pollution
	GEOREF
Meteorological Abstracts	
Oceanic Abstracts	
BIOSIS	
CAIN	CAIN
CA Condensates	CHEMCON/CHEM7071
Foundation Grants	
Foundation Director	
	LIBCON

DIALOG DATA BASIS (CONTINUOUSLY AVAILABLE)

Data base name	Subject matter and scope	Coverage (from entry year to present)[1]	No. of citations as of 10/1/75	Updating		Rates		
						Computer connect time (per hour)	Offline printing[2]	
				No. of citations	Frequency		Citation (format 2)	Full record (format 5)
Scientific and technical								
Biosis Previews*	Life sciences, from Biosciences Information Services	Jan 1972	910,000	20,000	Monthly	$ 65	$0.10	$0.10
CAIN	Agricultural and related areas, from National Agricultural Library	Jan 1970	705,000	10,000	Monthly	25	0.05	0.05
CHEMCON	Chemistry, from Chemical Abstracts Service	Jan 1972	1,078,000	26,000	Monthly	45	0.08	0.08
COMPENDEX	Engineering, from Engineering Index Inc.	Jan 1970	412,000	6,000	Monthly	65	0.05	0.10
Electrical and Electronics and Computers and Control Abstracts*	Electrical and electronic engineering and computers and control engineering, from The Institution of Electrical Engineers	Jan 1969	355,000	5,000	Monthly	45	0.05	0.10
ISMEC*	Mechanical engineering management, from The Institution of Electrical Engineers and The Institution of Mechanical Engineers	Jan 1973	34,200	1,400	Monthly	45	0.05	0.10

DIALOG DATA BASES, continued

Data base name	Subject matter and scope	Coverage (from entry year to present)[1]	No. of citations as of 10/1/75	Updating		Rates		
				No. of citations	Frequency	Computer connect time (per hour)	Offline printing[2]	
							Citation (format 2)	Full record (format 5)
Scientific and technical, continued								
Meteorological Abstracts (MGA)*	Meterological and geophysical literature, from the American Meteorological Society	Jan 1972	22,000	600	Monthly	$ 50	$0.05	$0.10
NTIS	Government sponsored reports, from National Technical Information Service	Jan 1964	481,900	2,300	Biweekly	35	0.05	0.10
Oceanic Abstracts*	Oceanography and marine related literature, from Ocean Abstracts	Jan 1964	83,000	1,200	Bimonthly	55	0.05	0.10
Physics Abstracts*	Physics, from The Institution of Electric Engineers	Jan 1969	471,000	7,000	Monthly	45	0.05	0.10
SCISEARCH*	Physical and life sciences, from Institute for Scientific Information	Jan 1974	800,000	40,000	Monthly	70	0.10	0.10

DIALOG DATA BASES, continued

Data base name	Subject matter and scope	Coverage (from entry year to present)[1]	No. of citations as of 10/1/75	Updating		Rates		
				No. of citations	Frequency	Computer connect time (per hour)	Offline printing[2] Citation (format 2)	Full record (format 5)
Business								
CLAIMS/CHEM*	American chemical patents, from IFI/Plenum Data Company	Jan 1950	356,000	2,000	Monthly	$150	$0.10	$0.10
CLAIMS/GEM*	American general, electrical, mechanical patents, from IFI/ Plenum Data Company	Jan 1975	33,500	4,500	Monthly	90	0.10	0.10
Domestic Statistics[3]	Time series and forecasts on economics, demographics, finance, production, from Predicasts Inc.	Jul 1971	95,100	1,700	Monthly Quarterly Annually[4]	90	0.10	0.20
EIS Industrial Plant Statistics*	Industrial directory, from Predicasts Inc.	Jul 1970	117,000	15,000[5]	Quarterly	90	0.50[6]	0.50[6]
F & S Indexes (Funk & Scott)[3]*	Business and economics, from Predicasts Inc.	Jan 1972	524,900	8,300	Monthly	90	0.10	0.20
INFORM	Business and finance, from ABI Inc.	Aug 1971	29,400	800	Monthly	65	0.05	0.10
Market Abstracts[3]*	Chemical and equipment market, from Predicasts Inc.	Jan 1972	78,900	1,300	Weekly Monthly	90	0.10	0.20

DIALOG DATA BASES, continued

Data base name	Subject matter and scope	Coverage (from entry year to present)[1]	No. of citations as of 10/1/75	Updating		Rates		
				No. of citations	Frequency	Computer connect time (per hour)	Offline printing[2]	
							Citation (format 2)	Full record (format 5)
Educational, Psychological, and Social Sciences								
AIM/ARM*	Instructional and research materials, from Center for Vocational and Technical Education	Sep 1967	21,000	2,000	Quarterly	$25	$0.05	$0.10
ERIC	Education, from the National Institute of Education	Jan 1966	227,500	2,500	Monthly	25	0.05	0.10
Exceptional Child Education Abstracts*	Exceptional child education, from Council for Exceptional Children	Jan 1969	19,750	750	Quarterly	25	0.05	0.10
Psychological Abstracts*	Psychology, from American Psychological Association	Jan 1967	218,000	2,000	Monthly	50	0.05	0.10
Social Scisearch*	Social sciences, from Institute for Scientific Information	Jan 1972	322,500	7,500	Monthly	70	0.05	0.10

*DIALOG exclusive

[1] These dates represent the start date for the computer readable file. However, publications covered often date earlier.

[2] Charge includes handling and postage for domestic and foreign users. Rates shown are for the most complete print out format. The rates are less for shorter formats.

[3] Available on a trial basis of up to six months. After six months, an annual access fee or subscription to the equivalent printed publication is required.

[4] The Domestic Statistics file contains Predicasts Statistical Abstracts, Predicasts Composits, Predicasts Basebook and Metrocasts. Updates are as follows: Predicasts Statistical Abstracts; preliminary monthly, revised quarterly, final annually; Predicasts Composits; entire file revised quarterly; Predicasts Basebook; entire file revised annually; Metrocasts, entire file revised quarterly.

[5] Each file update includes not only additions but also changes in each citation as necessary to keep the industrial plant statistics data accurate and current (e.g., change of telephone number, deletion of a plant that is no longer in business, etc.)

[6] Typed, displayed, printed.

MEDLINE Centers by Region

REGION 1

Boston University School of Medicine, Medical Library
Brown University, Science Library
Dartmouth College, Dana Biomedical Library
Harvard University, F. Countway Library
Maine Medical Center
Massachusetts General Hospital, Treadwell Library
Massachusetts Institute of Technology
Tufts University, Medical/Dental Library
University of Connecticut, L. M. Stowe Library
University of Massachusetts, Medical School Library
University of Vermont, Charles A. Dana Medical Library
Yale University, Medical Library

REGION 2

Albany Medical College
Albert Einstein College of Medicine, Library
College of Medicine and Dentistry of New Jersey, Library
Collumbia University, Medical Library
Cornell University Medical College, Library
Ellis Hospital, Library
Medical Research Library of Brooklyn
New York Medical College, Westchester Medical Center Library
New York Academy of Medicine, Library
Rutgers University
Sloan-Kettering Cancer Center
State University of New York, Albany, Central Office Computer Center
State University of New York, Buffalo, Health Sciences Library
State University of New York, Stony Brook, Health Sciences Library
University of the State of New York, The New York State Library

REGION 3

College of Physicians of Philadelphia, Library
Hahnemann Medical College, Library
Jefferson Medical College, Library
Medical College of Pennsylvania
Pennsylvania State University, Hershey Medical Center Library
Temple University, Health Sciences Center Library
University of Pennsylvania, School of Medicine Library
University of Pittsburgh, Falk Library
Veterans' Administration Hospital of Erie, Pennsylvania, Library

REGION 4

Andrews Air Force Base, Malcolm Grow USAF Medical Center
Bowan Gray School of Medicine, Library
Bureau of Narcotics and Dangerous Drugs, Drug Control Division
Charleston Area Medical Center
Children's Hospital, National Medical Center
District of Columbia General Hospital, Library
Duke University School of Medicine, Medical Center Library
Eastern Virginia Medical School
Fairfax Hospital
Federation of American Societies for Experimental Biology
Food and Drug Administration, Rockville
George Washington University Hospital
Georgetown University Medical Center, Dahlgren Memorial Library
Health Service Mental Health Administration, Library
Howard University, Medical/Dental Library
Johns Hopkins University, Welch Medical Library
Joint Medical Library, US Army/US Air Force, Office of the Surgeons General
Library of Congress, Congress Reference Service
Medical and Chichurgical Faculty of the State of Maryland, Library
National Agricultural Library
National Institute of Environment and Health Science
National Library of Medicine
National Library of Medicine
National Naval Medical Center, Stitt Library and
NIH, Division of Computer Research and Technology
NIH, Division of Research Grants
NIH, Library
NIH, National Cancer Institute
NIH, National Heart Institute
NIH, NIAMD
NIH, NIMH Library
Pharmaceutical Manufacturing Association
St. Elizabeth Hospital, NIMH Library
St. Elizabeth Hospital, Professional Library
University of Maryland at Baltimore, Health Sciences Library
University of North Carolina, Health Sciences Library
US Government
University of Virginia, Medical School Library
Veterans' Administration Central Office, 810 Vermont Avenue, NW, DC
Veterans' Administration Hospital, DC, Library
Virginia Commonwealth University, Medical College of Virginia
Walter Reed Army Medical Center, General Hospital
Washington Hospital Center, Medical Library
West Virginia University, Medical Center Library

REGION 5

Case Western Reserve University, Cleveland Health Sciences Library
Chemical Abstracts Service
Environmental Protection Agency, Cincinnati

REGION 5, continued

Harper Hospital, Departmental Library
Henry Ford Hospital
Medical College of Ohio at Toledo, Library
Michigan State University, Science Library
Ohio State University College of Medicine, Health Center Library
Sinai Hospital, Detroit, Medical Library
University of Cincinnati, Medical Center Library
University of Detroit, School of Dentristry Library
University of Kentucky, Medical Center Library
University of Louisville, Kornhauser Health Sciences Library
University of Michigan, Medical Center Library
Wayne State University, Shiffman Medical Library
William Beaumont Hospital, Medical Library

REGION 6

Emory University, A. W. Calhoun Medical Library
Jacksonville Hospitals Education Program, Borland Medical Library
Medical College of Georgia, Division of Health Sciences Library
Medical University of South Carolina, Library
Toxicology Information Response Center, Biology Department
University of Alabama, Lister Hill Center of Health Science
University of Florida, J. H. Miller Health Center Library
University of Miami, L. Calder Memorial Library
University of Mississippi Medical Center, Rowland Medical Library
University of Southern Alabama, Biomedical Library
University of Southern Florida, Medical Center Library
University of Tennessee, Medical Units Library
Veterans' Hospital, Decatur, Georgia, Library
Vanderbilt University, School of Medicine Library

REGION 7

Abbot-Northwestern Hospital
American Medical Assocation, Archive Library
Fairview Community Hospital, Health Sciences Library
Hennepin County General Hospital
Indiana University, School of Medicine Library
John Crerar Library
Luthern General Hospital, Library
Mayo Foundation, Mayo Clinic Library
Medical College of Wisconsin, Medical/Dental Library
Northwestern University, Medical and Dental School Library
Southern Illinois University, School of Medicine Library
University of Chicago, Billings Hospital Library
University of Illinois Medical Center, Library of Health Sciences
University of Illinois, Rockford School of Medicine Library
University of Iowa, Medical Library
University of Minnesota, Biomedical Library

REGION 7, continued

University of Wisconsin, Middleton Medical Library
University of Minnesota, Duluth, Health Sciences Library
Veterans' Administration Hospital, Wood, Wisconsin

REGION 8

Creighton University, Health Sciences Library
Fitzsimons General Hospital, Medical-Technical Library
St. Luke's Hospital, Library
St. Louis University, Medical Center Library
University of Colorado, Denison Memorial Library
University of Kansas, Clendening Medical Library
University of Missouri at Columbia, Medical Library
University of Missouri at Kansas City, School of Medicine Library
University of Nebraska, Midcontinental Regional Medical Library Service
University of Utah, Eccles Medical Science Library
Veterans' Administration Hospital, Lincoln, Nebraska, Library
Washington University, School of Medicine Library

REGION 9

Brooke General Hospital, Medical Library
Food and Drug Administration, National Center for Toxicology Research
Houston Academy of Medicine, Texas Medical Center Library
Louisiana State University at New Orleans, Library
Louisiana State University, School of Medicine Library
Lovelace Foundation for Medical Education and Research
Sparks Regional Medical Center, Health Sciences Library
Texas Medical Association, Library
Texas Tech University School of Medicine
Tulane University, School of Medicine Library
University of Arkansas, Medical Center Library
University of New Mexico, Library of Medical Science
University of Oklahoma, Health Science Center Library
University of Texas at Dallas, Medical School Library
University of Texas at Galveston, Medical Branch Library
University of Texas at San Antonio, Medical School Library
William Beaumont Army Medical Center

REGION 10

Alaska Health Science Information Center
Madigan General Hospital
Columbus Hospital, Great Falls, Montana, Library
University of Oregon, Medical School Library
Sacred Heart General Hospital, Medical Center Library
Veterans' Administration Hospital, Boise, Idaho, Library
University of Washington, Health Sciences Library

REGION 11

California College of Podiatric Medicine
Cedars-Sinai Medical Center, Hospital Library
Children's Hospital of Los Angeles, Medical Library
David Grant USAF Medical Center
Hawaii Medical Library, Inc.
Hoag Memorial Hospital, Presbyterian, Medical Library
Kaiser Foundation Hospital
Los Angeles County Harbor General Hospital, Medical Library
Los Angeles County Medical Association, Library
Letterman General Hospital, Medical Library
Loma Linda University, V. Radcliff Memorial Library
Martin Luther King, Jr. General Hospital, Medical Library
Memorial Hospital Medical Center, Long Beach, Medical Library
Mills Memorial Hospital
Mount Zion Hospital and Medical Center
NASA Ames Research Center
Orthopaedic Hospital, Rubel Memorial Library
Pacific Medical Center and University of the Pacific
Rancho Los Amigos Hospital, Library
St. Joseph Hospital and Children's Hospital
Stanford University Medical Center, Lane Medical Library
Tripler Army Medical Center, Medical Library
University of Arizona, Medical Center Library
University of California at Berkeley Public Health Library
University of California at Davis, Health Sciences Library
University of California at Irvine, Medical Science Library
University of California at Los Angeles, Biomedical Library
University of California at Los Angeles, Biomedical Library Reference Section
University of California at San Francisco, Library
University of California at San Diego, Biomedical Library
University of Hawaii, Hamilton Library
University of Nevada at Reno, Life and Health Sciences Library
University of Southern California School of Medicine, Norris Medical Library
Veterans' Administration Hospital, Sepulveda, California, Medical Library

REGION 70 (Canada)

Dalhousie University, W. K. Kellog Health Sciences Library
Department of National Health and Welfare, Health Protection Branch
McGill University, Medical Library
Memorial University of Newfoundland, Faculty Medical Library
National Research Council of Canada, National Science Library
University of British Columbia, Library
University of Calgary, Library
University of Manitoba, Library
University of Saskatchewan, Health Sciences Library
University of Toronto, Library

REGION 80 (foreign)

Biblioteca
British Library Lending Division

MEDLINE Explanation Sheet

Your MEDLINE search covers the literature indexed in about 2400 biomedical journals of the last three years. The system is based on citations from selected journals indexed in _Index Medicus_. The information is listed with the following abbreviations:

AU	authors of the article
TI	title of the article
SO	source, journal, with title abbreviation, volume, page, and date of publication. The journal title abbreviations with complete journal titles are included in the _List of Journals Indexed in Index Medicus_ and its supplements which appear irregularly in monthly issues of _Index Medicus_.
MH	main heading used in indexing the article
/	subheading or particular aspect of a subject
*	precedes a main heading indicating that the concept is a major and significant point in the article

MESH (Medical Subject Headings) terms and subheadings are used in subject searches. Often, we cannot get exactly what is wanted, due to lack of a precise MESH term. In these cases, we try alternate strategies. For example, key words in natural English are sometimes utilized for a title search. If the retrieval does not seem to be what you want, consult the MEDLINE Librarian.

MEDLINE Center
University of Oregon Medical School
Library
3181 SW Sam Jackson Park Road
Portland, Oregon 97201
Telephone: (503) 225-8026

UNIVERSITY OF WASHINGTON LIBRARIES
Health Sciences Library
Seattle, Washington 98195

WHAT IS MEDLINE? WHAT IS BACKFILE 69/71? WHAT IS SDILINE?

What is MEDLINE?

MEDLINE is the acronym for MEDLARS (Medical Literature Analysis and Retrieval System) On-Line. MEDLINE is a data base that contains citations for journal articles from *Index Medicus*, *International Nursing Index*, and *Index to Dental Literature* for approximately the last two to three years. About 2,800 journals in biomedicine, nursing and dentistry are included. MEDLINE is designed as a tool for locating specific information rapidly. It does not entirely replace the more conventional manual literature search; but when a search is appropriate for MEDLINE, it does save time and effort.

When is a search appropriate for MEDLINE?

1. When a search requires the linkage of two or more items in MeSH (*Medical Subject Headings*), the official thesaurus of *Index Medicus*.

   Examples: *Exercise therapy* in *osteoporosis*
   Amniocentesis in the *diagnosis* of *Mongolism* (*Down's syndrome*)

2. When a search must be limited by age group, sex, kind of animal, etc.

   Examples: *Drug addiction* in *children*
   Diabetes in *women*
   Intestinal neoplasms in *horses*

3. When a search is on a subject not covered by a MeSH term.

   Examples: Problem-oriented records
   Aequorin

4. When a search is on a syndrome, unless the syndrome is a MeSH term.

   Example: Fordyce's disease but not
   BEHCET'S SYNDROME (a MeSH term)

5. When a search is on a particular type of neoplasm in a particular area of the body.

   Examples: Look in *Index Medicus* for articles on *fibrosarcoma* or on *breast neoplasms*, but ask for a MEDLINE search on *fibrosarcoma* of the *breast*

6. When a search is on a subject which falls within certain categories--primarily, techniques. Many more articles are indexed with these terms than will appear in the printed Index Medicus. To get a few representative articles, look in Index Medicus. To get most or all articles, a MEDLINE search is necessary.

7. When a search is on an author. Index Medicus prints only the first three authors of a paper. To find all the papers in the data base by a particular author, MEDLINE must be used.

8. When there are very few references in the Cumulated Index Medicus under the MeSH term selected. MEDLINE will have others where the concept is a minor but significant point of the article.

9. When one needs information for a clinical emergency. During the hours when the data base is accessible, a MEDLINE search may be faster than a manual search and will be run immediately.

When is a search not appropriate for MEDLINE?

1. When it is on a subject for which there is a single MeSH term in certain categories.

   Examples: DROWNING
   BURNS, CHEMICAL
   SLEEP DEPRIVATION

   When a requester needs only a few articles on any subject for which there is a MeSH term. These are in the printed Index Medicus.

2. When a search is for books, the proceedings of conferences, pamphlets, technical reports or AV materials. For these materials, look in the library's card catalog or in the National Library of Medicine Current Catalog or ask for a CATLINE search, which is similar to MEDLINE but searches the Current Catalog data base. (An AVLINE data base for AV material is under development.)

3. When a search is for a subject outside the scope of the data base. The subject section of the List of Journals Indexed in Index Medicus, included in the January Index Medicus and the Cumulated Index Medicus as well as published separately, gives a good, general idea of the scope of both Index Medicus and MEDLINE. MeSH is not a good indicator, since the terms are really only descriptors that may be attached to articles. For example, you will find the term "trees" in MeSH, but there will be very few articles on trees in MEDLINE. Other data bases or printed indexes

are better sources of such information. If the List of Journals Indexed does not contain the key journals in a subject area, a MEDLINE search is not ordinarily rewarding.

Before a MEDLINE search is requested:

1. Define the subject as specifically as possible. Know what is not wanted, as well as what is wanted.

2. Look at MeSH and Index Medicus. Does one of the above rules apply to the search?

3. Look in the library's card catalog.

4. Talk to a search analyst. (At the University of Washington, all reference librarians are search analysts.)

5. If still in doubt, request a MEDLINE search.

How do I make a request?

Complete a request form and submit it to the MEDLINE Center. If you are at the University of Washington, you can get request forms at the Reference Desk. If you want forms sent to you, call the MEDLINE Center.

How many citations should I request on MEDLINE?

If you need the citations in less than five days, ask for 30 or fewer. If time is not a problem and you want as many references as possible, mark the appropriate box on the MEDLINE Search Request form. Of course, if you only need up to 10 or 30, ask for that. We shall get you the most highly relevant ones we can; if more than the number you request are on MEDLINE, we will give you the most recent of these.

How does it work?

A person at the terminal participates in a dialogue with the computer via the telephone. The dialogue and printing of some citations may take only a few minutes; but the processing of a search is longer, with the time for intellectual formulating and for other processing. (See below.) Interested persons may come into the MEDLINE Center and watch their own searches or those of others being run.

How far back does it go?

The MEDLINE data base itself covers the most recent two to three years. For example, during 1974, those citations to articles indexed from January, 1972 to date were retrieved.

How long do searches take?

MEDLINE normally takes two days to one week; 30 citations or fewer are ready in two working days. When more than 30 citations are relevant on MEDLINE, we can ask for 10 on-line but will also get all of them printed off-line (at the computer at Bethesda, Maryland, or Albany, New York) and mailed to us. We will occasionally process MEDLINE searches more rapidly.

Why is it generally two days for a MEDLINE search?

We must give thought to each search to select those terms which will retrieve the most relevant citations without losing many others. In addition, time is required to record the requester's information so that we can find the search again.

What is BACKFILE 69/71?

BACKFILE 69/71 is a back file to MEDLINE, covering the journal literature indexed 1969 through 1971. We cannot get retrievals of BACKFILE 69/71 printed on-line--only off-line--and these take one or two weeks.

How much do they cost?

MEDLINE development and maintenance are provided by the National Library of Medicine. Those at the University of Washington supported by grants and contracts are asked to pay $2.00 by interdepartmental transfers (IDT's). The University of Washington Libraries pay the cost of the searches for the remaining faculty, staff and students. Non-University of Washington requesters will have to prepay $3.00 by cash or check (made out to the University of Washington) for each request.

Is there anything that provides references every month? What is SDILINE?

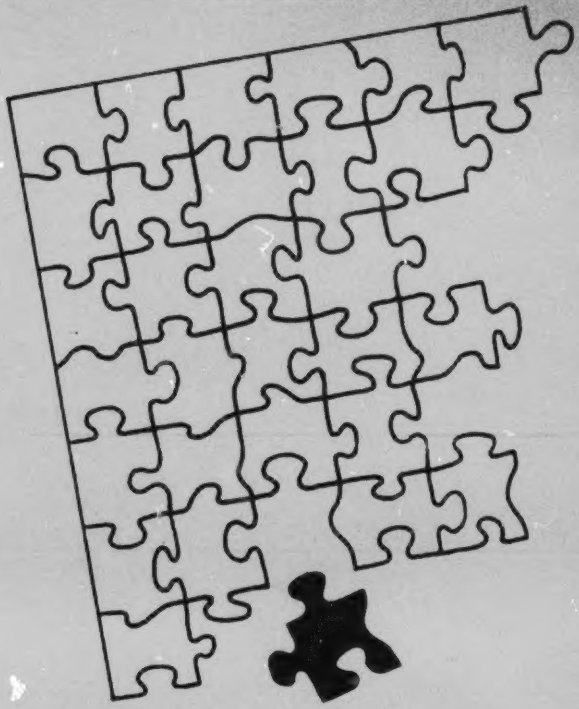
Yes! If you want to keep abreast of recent articles on one or more authors or subjects, ask for a SDILINE (Selected Dissemination of Information). It covers one month of the MEDLARS tapes (equivalent to the same month of Index Medicus) and is automatically run every month. If you wish your MEDLINE to be updated in this way, please fill out a second form and mark it "SDILINE" at the top. Also, ask for an SDILINE Memorandum, which needs to be filled out before your SDILINE searches can be run. It will continue to be free to state-supported University of Washington requesters. Others will have to pay $18.00 per year, or $1.50 per month, for the number of months requested, either by IDT from University of Washington grants or contracts or by cash or check (made out to the University of Washington).

MEDLINE Center, Health Sciences Library SB-55, University of
Washington, (206) 543-5530

you need access
to very specific
information about the
education of exceptional children

a toll free
telephone call
can initiate a
Customer Computer Search
tailored to your requirements

THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive
Reston, Virginia 22091



CEC
CUSTOM
COMPUTER
SEARCHES

The Council for Exceptional Children

HOW CAN A COMPUTER SEARCH HELP?

A Custom Computer Search can help you answer many questions concerned with the education of handicapped and gifted children — e.g., questions related to research, teaching methods, program descriptions, curriculum guides, career education, mainstreaming, assessment — spanning all disciplines and exceptionalities.

Access to the most current and comprehensive information on a specialized topic can be tailored to your specific needs. Information specialists will analyze your request, design your search strategy, and edit the output.

HOW DO I INITIATE A SEARCH?

- call toll free
  800-336-3728 (Continental U.S. only)
  (Virginia residents, call collect
  703-620-3660)
- For best results, a toll free telephone call permits discussion of your search strategy. Residents outside the Continental U.S. are encouraged to call, but if unable, may use the enclosed order form (where purchase orders are required by your organization, please have your P.O. number ready)

WHAT DO I ASK FOR?

An information specialist will discuss your information needs and will help determine such things as:

- the years you want the search to cover
- the scope of the search, i.e., do you want to limit the search to 100 citations, do you want all available references?

HOW DO I STATE THE PROBLEM?

Describe your problem in detail, indicating population or grade level, and the exceptionality you are concerned with. Describe what kind of materials you are interested in, e.g., curriculum guides, research reports, teacher guides, program evaluations, or conference reports.

Sample problem statement:

> Please send all references you have on the education of preschool severely handicapped children, with particular emphasis on available teaching guides and documents on parent involvement.

WHAT WILL I RECEIVE?

- you will receive a computer printout containing citations with abstracts
- each citation includes title, author, publication date, number of pages and an abstract averaging 200 words
- the number of citations with abstracts will depend upon how much is available in your topic area and what maximum limit you set during negotiation
- you will receive your search within two weeks of date of receipt of order or telephone call to our office

The CEC Information Center comprehensively identifies and acquires English language literature on the education of handicapped and gifted children. Much of this information is unavailable from commercial sources. In addition to its own *exclusive* data base, CEC has access to the ERIC Document Reproduction Services (EDRS). If a particular document is available for purchase from EDRS, the appropriate ED number and order form are provided. If a document is not available from purchase from EDRS, information is provided concerning availability source.

HOW MUCH DOES A SEARCH COST?

CEC members	**Nonmembers**
$25 (base price covers up to 100 citations)	$35 (base price covers up to 100 citations)
$5 (for each additional 50 citations or fractions thereof)	$5 (for each additional 50 citations or fractions thereof)

Individuals may be billed. For institutions, a purchase order number is requested.

BIBLIOGRAPHIES

Will a preselected bibliography meet your needs? For an overview of a general subject, CEC provides over 50 preselected, *preprinted* titles available for immediate delivery. The series spans many areas of subject interest and discipline, including new and updated titles published early 1975. Write for current listing.

ORDER FORM

For best results, a toll free telephone call is preferable to permit discussion of your search strategy: 800-336-3728.

I would like a computer search on: (state problem)

Name______________________________

Position______________________________

Address______________________________

Telephone where you can be reached during the day__________

Date__________

CEC Members $25 **Nonmembers $35**

For each additional 50 citations $5

☐ Limit to 100 citations

☐ Limit to __________

☐ Unlimited

☐ Send current list of Topical Bibliographies

☐ Send CEC Publications Catalog

Please add 10% for postage and handling. (Virginia residents add 4% sales tax.)

Bill me______ Check enclosed______ P.O. Number________

Mail this form to:

Information Services
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive
Reston, Virginia 22091

NEXUS
(202) 785-8480

A project of the
American Association
for Higher Education

(202)785-8480

Planning something new? Want to speak to other people who have already tried it? Knowing their experiences might save you a lot of time and money.

If you're involved in making some kind of change in postsecondary education, you already know how difficult it is to get the information you need—when you need it. There's either so much or so little information, you don't know where to begin. That's why NEXUS was created.

NEXUS is a "people bank." When you need information, NEXUS can connect you with people who can provide it. NEXUS was set up to help translate good ideas into action by providing greater access to handy information and knowledgeable people. Because NEXUS acts quickly by doing most of its work by phone, it shortens the time needed for significant programs and ideas to get off the ground, develop, and circulate.

HOW NEXUS WORKS

NEXUS is as simple to use as a telephone. All you have to do is call (202) 785-8480. A NEXUS staff member will discuss your question—its background, difficulty, and time-frame—with you. Ordinarily, we'll refer you right away to experts, clearinghouses, and sometimes published resources that can supply the information or guidance you need. If an immediate referral cannot be made using our information storage system, the NEXUS staff member will search for the information and call you back, probably within two working days. (In 1975, three out of four inquiries were answered within this time period).

OTHER THINGS YOU'LL WANT TO KNOW

How much do I pay?
Nothing (except, of course, the price of the phone call).

What does NEXUS 'cover'?
In postsecondary education, practically everything. But our specialty is effective programs, knowledgeable people, and new developments. We have a knowledgeable staff and a growing information system. We also have a long list of contacts—people we have used as referrals in the past—complete with evaluations from people who have asked them for help. If the information still eludes us, we search for referrals from our networks of practitioners, clearinghouses, and associations.

How does NEXUS choose the right referral for my question?
Chances are that we are personally acquainted with the referral's work, have used that referral on questions similar to yours, and have received a favorable evaluation of the referral from other callers. When we refer you to people and programs we have not contacted before, we call them first to make sure that they have the specific information you need. If they do, we tell them you will be calling soon.

What kinds of questions does NEXUS deal with?
Sometimes it's easier to say what kinds of questions we don't handle. We don't do routine research, refer people to jobs, do consulting, or duplicate the work of other clearinghouses. We are concerned with the *practice* and the effectiveness of educational programs and changes of many kinds. If you're not sure, call us and ask.

Are requests for information by mail accepted?
Yes. But please be as specific as possible. Include your telephone number. Follow the hints for NEXUS users. All information is considered confidential.

HINTS ON HOW TO USE NEXUS

Here are some things to keep in mind when you use NEXUS:

- Make your questions as specific as possible. That helps us make connections related directly to your needs.
- Let us know how you plan to use the resource. This helps us decide what kinds of resources are most appropriate. For example, if your purpose is to persuade others that a program has worked elsewhere, you'll probably need written as well as anecdotal information. Or, if you have encountered a problem in implementing an idea, you'll want to be connected with someone who has dealt with a similiar problem—someone who has been in your situation before. Please be candid; the information you give us is confidential.
- If you have already tried leads that didn't pan out—hunches, other leads, or agencies—tell us about them. These leads often start us on a new track that can help us answer your question more quickly.
- Tell us what your deadlines are. It helps us to know how rapidly you need the information.
- Give us a thumbnail sketch of your institution. Be ready to tell us something about its size, students, control (public or private), environment, and institutional constraints. These details help us to connect you with people from places similar to yours.

WHAT KINDS OF QUESTIONS HAS NEXUS ANSWERED?

In our first 18 months we've handled over 2000 questions. To give you a grasp of the range, here are a few examples:

- A faculty member wanted to know what schools similar to his had developed interdisciplinary freshman year programs, focusing on a particular theme. We put him in touch with three people who had developed programs at different institutions.
- A development officer involved in budget projections wanted to determine cost of living estimates for the next five years. We connected him with several researchers who had knowledge of national and local projections.
- A regent called to ask who would know about criteria used by proprietary schools to grant associate degrees. We put her in touch with people from two other states who had developed criteria for the approval of two-year occupational programs.
- A student wanted to know how others managed to get credit for student leadership work. We put her in contact with several people who awarded credit for student government work.
- A person newly in charge of a faculty development program wanted to know how others ran similiar programs in their institutions. In order that he might visit some operational programs, we connected him with several people in his state who have already implemented faculty development programs.
- A college president wanted to know what other medium-size schools had recently re-evaluated their total athletics program. We put him in touch with several institutions which had recently completed self-studies and come up with different conclusions.

These are just a few of the many questions that people have asked NEXUS during its start.

DO YOU HAVE QUESTIONS ABOUT ANY OF THESE?

Here's a listing of some of the areas that NEXUS has dealt with recently. If you've got specific questions about any of these, you might want to call NEXUS for assistance.

Evaluation: administrative, faculty, student
Tenure and its alternatives
Weekend colleges
Modular curricula
Academic advising
Peer counseling
Interdisciplinary programs
Consumer protection
Contract learning
Individualized instruction
Cable T.V.
Academic bankruptcy
Goal-setting
Prisoner education programs
Orientation programs
External degrees
Ethnic studies
Collective bargaining
Self-studies and mission statements
Life-long learning
Veterans programs
Field experience education
Tuition plans
Transfer students
State licensing
Statewide planning
Faculty development
Part-time students
Women in higher education
Grading
Student outcomes
Interinstitutional cooperation
Attrition reduction

Maybe you have answers as well as questions. If you're doing something that you think would be of interest to other innovators and would like to act as a referral, let us know about yourself and your program.

DIRECTORY

of

ERIC MICROFICHE COLLECTIONS

(Arranged by Geographic Location)

September 1975

ERIC PROCESSING AND REFERENCE FACILITY
OPERATED FOR THE NATIONAL INSTITUTE OF EDUCATION
by Operations Research, Inc., Information Systems Division
4833 RUGBY AVENUE, SUITE 303, BETHESDA, MARYLAND 20014

INTRODUCTION

This Directory of ERIC Microfiche Collections is based primarily on the current "Standing Order" customer list of the ERIC Document Reproduction Service (EDRS). "Standing Order" customers are defined as those organizations which have placed orders/subscriptions with EDRS to receive, on a regular and continuous basis, the entire microfiche output (about 12,000 titles on 20,000 microfiche per year, at current rates).

It must be understood, however, that the EDRS "Standing Order" list constantly fluctuates somewhat as new orders are placed, old orders are cancelled, or purchase orders run out (or are reactivated as a result of running out). This Directory lists, therefore, a total of 643 organizations which are currently receiving regular monthly shipments of ERIC microfiche from EDRS or which are otherwise known to possess extensive ERIC microfiche collections. "Ship To" addresses for their organizations are listed in a basic arrangement by geographic location, e.g., states of the United States--Alabama to Wyoming--followed by foreign organizations. Organizations are listed by city within each state.

Not all organizations appearing on this list are open to the public; nor do they all necessarily include complete collections of the earlier documents. Where there is any doubt as to the accessibility or extent of a given microfiche collection, it is advisable to make inquiries in advance of a visit.

This Directory has been prepared for the National Institute of Education (sponsors of ERIC) by the ERIC Processing and Reference Facility, as a reference for the use of the ERIC network, associated organizations, and other interested parties. Inquiries concerning this list can be addressed to the Facility at the address shown on the cover. However, inquiries concerning the availability of ERIC microfiche, on either a standing order or on-demand basis, should be addressed directly to EDRS at the following address:

ERIC Document Reproduction Service (EDRS)
Customer Service
P. O. Box 190
Arlington, Virginia 22210
Telephone: (703) 841-1212

ERIC MICROFICHE COLLECTIONS

Alabama

Auburn University
Ralph Brown Draughton Library
Serials Department
Auburn, Alabama 36830

Samford University
Library
800 Lakeshore Drive
Birmingham, Alabama 35209

University of Alabama in Birmingham
University College Library
1919 7th Avenue, South
Birmingham, Alabama 35233

U.S. Army Aviation TNG Library
DABTO 1-75-M-B938
Fort Rucker, Alabama 36360

Jacksonville State University
Thomas Freeman Ramona Wood Library
Jacksonville, Alabama 36265

Livingston University
Julia Tutwiler Library
Livingston, Alabama 35470

University of South Alabama
307 Gaillard Drive
Mobile, Alabama 36608

University of Montevallo
Carmichael Library
Montevallo, Alabama 35115

Alabama State University
G.W. Trenholm Library
Montgomery, Alabama 36104

Auburn University at Montgomery
Library
Montgomery, Alabama 36109

Alabama Agricultural And Mechanical University
Joseph F. Drake Memorial Library
Normal, Alabama 35762

Troy State University
Library
Troy, Alabama 36081

University of Alabama
Library
University, Alabama 35486

Alaska

Anchorage Higher Education Consortium
Library
3211 Providence Avenue
Anchorage, Alaska 99504

University of Alaska-Juneau
Library
Auke Bay, Alaska 99821

University of Alaska
Elmer E. Rasmuson Library
Fairbanks, Alaska 99701

Alaska State Library
Department of Education
State Capitol Building
Juneau, Alaska 99801

Arizona

Northern Arizona University
University Library
Flagstaff, Arizona 86001

Arizona State Department of Education
Research Coordinating Unit
1535 West Jefferson, 3rd Floor
Phoenix, Arizona 85007

Arizona State University
Hayden Library
Tempe, Arizona 85281

Pima College
Library
2202 W. Anklam Road
Tucson, Arizona 85709

University of Arizona
Library - Social Science Division
Tucson, Arizona 85721

Arkansas

Ouachita Baptist University
Riley Library
Arkadelphia, Arkansas 71923

State College of Arkansas
Torreyson Library
Conway, Arkansas 72032

University of Arkansas
University Library
Serials Department
Fayetteville, Arkansas 72701

University of Arkansas at Little Rock
33rd and University Avenue
Little Rock, Arkansas 72204

Southern State College
Library
Magnolia, Arkansas 71753

Arkansas Polytechnic College
Library
Russellville, Arkansas 72801

Arkansas State University
Dean B. Ellis Library
State University, Arkansas 72467

California

Azusa Pacific College
Marshburn Memorial Library
Azusa, California 91702

California State College - Bakersfield
9001 Stockdale Highway
Bakersfield, California 93309

University of California - Berkeley
Education/Psychology Library
Berkeley, California 94720

California State University - Chico
Library
Chico, California 95926

Claremont College
Honnold Library
Documents Department
Claremont, California 91711

Contra Costa County Department of Education
Access Information Center
2371 Stanwell Drive
Concord, California 94520

California State College - Dominguez Hills
Library - Serials Department
1000 East Victoria Street
Dominguez Hills, California 90747

Los Angeles County Superintendent of Schools
Division of Program Evaluation, Research Services
9300 E. Imperial Highway
Downey, California 90242

California State University - Fresno
Library
Fresno, California 93740

California State University - Fullerton
Library
800 North State College Boulevard
Fullerton, California 92634

Fullerton College
Library
321 East Chapman Avenue
Fullerton, California 92634

California State University - Hayward
Library
25800 Hillary Street
Hayward, California 94542

University of California - La Jolla
University Library
La Jolla, California 92037

California State University - Long Beach
Library
6101 East 7th Street
Long Beach, California 90840

Southwest Regional Laboratory for Educational Research and Development
4665 Lampson Avenue
Los Alamitos, California 90720

California State University - Los Angeles
John F. Kennedy Memorial Library
5175 State College Drive
Los Angeles, California 90032

ERIC Clearinghouse For Junior Colleges
University of California
96 Powell Library Building
Los Angeles, California 90024

University of Southern California
Library
University Park
Los Angeles, California 90007

Pepperdine University
Payson Library
24255 Pacific Coast Highway
Malibu, California 90265

California State University - Northridge
Library
18111 Nordhoff Street
Northridge, California 91324

ERIC MICROFICHE COLLECTIONS

Ambassador College
Library
300 West Green Street
Pasadena, California 91123

California State Polytechnic University - Pomona
Kellogg-Voorhis Library
3801 West Temple Avenue
Pomona, California 91768

San Mateo County Board of Education
Education Resources Center
333 Main Street
Redwood City, California 94063

University of California - Riverside
Library
Riverside, California 92507

California State College - Sonoma
Library
1801 East Cotati Avenue
Rohnert Park, California 94928

California State Department of Education
Vocational Education Resources
Information Center
1025 P Street, Room 209
Sacramento, California 95814

California State University - Sacramento
Library
6000 J Street
Sacramento, California 95819

California State College
San Bernardino Library
5500 State College Parkway
San Bernardino, California 92407

San Diego County Department of Education
Superintendent of Schools
6401 Linda Vista Road
San Diego, California 92111

San Diego State University
Library
5402 College Avenue
San Diego, California 92115

U.S. International University
Elliott Campus Library
8655 Pomerado Road
San Diego, California 92124

Far West Laboratory for Educational Research and Development
Library
1855 Folsom Street
San Francisco, California 94103

San Francisco Public Library
Larkin & Fulton Streets
San Francisco, California 94102

San Francisco State University
Library
1630 Holloway Avenue
San Francisco, California 94132

San Jose State University
Library
125 South Seventh Street
San Jose, California 95192

California State Polytechnic University - San Luis Obispo
Library
San Luis Obispo, California 93401

University of California - Santa Barbara
Serials Library
Santa Barbara, California 93106

ERIC Clearinghouse on Information Resources
Stanford University
Center for Research and Development
in Teaching
Stanford, California 94305

University of the Pacific
Library
Stockton, California 95204

California State College - Stanislaus
Library
800 Monte Vista Avenue
Turlock, California 95380

Whittier College
13729 Earlham Drive
Whittier, California 92307

Colorado

ERIC Clearinghouse for Social Studies/Social Science Education
855 Broadway
Boulder, Colorado 80302

University of Colorado
Education Library
Boulder, Colorado 80302

Education Commission of the States
1860 Lincoln Street, Suite 300
Denver, Colorado 80203

U.S. Office of Education/DHEW
Region VIII
Federal Building
19th & Stout Street
Denver, Colorado 80202

University of Denver
Library - Serials Department
Denver, Colorado 80210

Colorado State University
Library
Fort Collins, Colorado 80521

University of Northern Colorado
Library
Greeley, Colorado 80639

Western State College
Library
Gunnison, Colorado 81230

Northern Colorado Board of Cooperative Educational Services
Information Retrieval Center
830 South Lincoln
Longmont, Colorado 80501

Connecticut

University of Bridgeport
Magus Wahlstrom Library
Bridgeport, Connecticut 06602

Southern Connecticut State College
H. C. Buley Library
501 Crescent Street
New Haven, Connecticut 06515

Area Cooperative Educational Services
Educational Resources Center
800 Dixwell Avenue
North Haven, Connecticut 06511

University of Connecticut
Wilbur Cross Library
Storrs, Connecticut 06268

Capitol Region Education Council
443 Windsor Avenue
Windsor, Connecticut 06095

Delaware

Delaware State Department of Public Instruction
Departmental Library
John G. Townsend Building
Dover, Delaware 19901

District of Columbia

American University
Library
318 Asbury Building
Washington, DC 20016

Catholic University of America
Library
Washington, DC 20017

D.C. Public Schools
Division of Planning Research and
Evaluation
Research Information Center
415 12th Street, N.W., Room 1013
Washington, DC 20004

D.C. Teachers College
Library
Wilson Building
1100 Harvard Street, N.W.
Washington, DC 20009

Department of Health, Education, and Welfare
Department Library
Room 1436 North Building
330 Independence Avenue, S.W.
Washington, DC 20202

ERIC Clearinghouse on Teacher Education
American Association of Colleges for
Teacher Education
1 Dupont Circle, N.W., Suite 616
Washington, DC 20036

ERIC Clearinghouse on Higher Education
George Washington University
1 Dupont Circle N.W., Suite 630
Washington, DC 20036

Federal City College
Educational Materials Center
Graduate Division
Victor Building
724 Ninth Street, N.W.
Washington, DC 20000

Gallaudet College
Edward Miner Gallaudet Memorial
Library
7th & Florida Avenue N.E.
Washington, DC 20002

ERIC MICROFICHE COLLECTIONS

Library of Congress
Science Reading Room
First and Independence Avenue, S.E.
Annex, Room 5006
Washington, DC 20540

Library of Congress
Microform Reading Room
First Street and Independence Avenue, S.E.
Main Building, Room 140-b
Washington, DC 20540

National Education Association
Research Division
1201 16th Street, N.W., Room 522
Washington, DC 20036

National Institute of Education
Education Research Library
1832 M Street N.W.
Washington, DC 20208

National Institute of Education
Education Branch Library
400 Maryland Avenue, S.W. Room A-038
Washington, DC 20202

U.S. Office of Education/DHEW
Bureau of Occupational and Adult Education
Regional Office Building, Rm. 5020
7th and D Streets, S.W.
Washington, DC 20202

Washington Technical Institute
4100 Connecticut Avenue, N.W.
Washington, DC 20008

Florida

Florida Atlantic University
Library
Boca Raton, Florida 33432

University of Miami
Otto G. Richter Library
Coral Gables, Florida 33124

Broward County School Board
Materials Center
Fort Lauderdale, Florida 33310

Nova University
Hutchinson Library
3301 College Avenue
Fort Lauderdale, Florida 33314

Indian River Community College
Library
South 35th Street and Cortez Boulevard
Fort Pierce, Florida 33450

University of Florida
Education Library
Norman Hall
Gainesville, Florida 32611

Duval County Schools
Educational Media Center
1741 Francis Street
Jacksonville, Florida 32209

Florida International University
Library - Serials Department
Tamiami Trail
Miami, Florida 33144

Miami-Dade Community College
Library - Downtown Campus
300 N.E. 2nd Avenue
Miami, Florida 33132

Miami-Dade Community College-South
South Campus Library-Periodicals
11011 S.W. 104th Street
Miami, Florida 33156

Miami-Dade Community College
Periodical Department
11380 N.W. 27th Avenue
Miami, Florida 33167

Marion County Schools
Professional Library
406 S.E. Alvarez Avenue
Ocala, Florida 32670

Florida Technological University
Library
Orlando, Florida 32816

University of West Florida
Library - Periodicals
Pensacola, Florida 32504

Florida State Department of Education
Knott Building
Tallahassee, Florida 32304

Florida State University
Library
Tallahassee, Florida 32306

University of South Florida
Library
Tampa, Florida 33606

Georgia

Albany State College
Margaret Rood Hazard Library
Albany, Georgia 31705

Georgia Southern College
Alma Center
Alma, Georgia 31510

Georgia Southwestern College
James Earl Carter Library
Americus, Georgia 31709

University of Georgia
Library
Athens, Georgia 30601

Georgia State Department of Education
156 Trinity Avenue S.W., Room 318
Atlanta, Georgia 30303

Georgia State University
Library
104 Decatur, S.E.
Atlanta, Georgia 30303

Mercer University in Atlanta
Library
3000 Flowers Road
Atlanta, Georgia 30341

Oglethorpe College
Library
4484 Peachtree Road, N.E.
Atlanta, Georgia 30319

Augusta College
Library - Serials Section
2500 Walton Way
Augusta, Georgia 30904

West Georgia College
Sanford Library
Carrollton, Georgia 30117

Columbus College
Library
Algonquin Drive
Columbus, Georgia 31907

North Georgia College
Library
Dahlonega, Georgia 30533

Fort Gordon
Woodworth Library, Building 33500
Fort Gordon, Georgia 30905

Georgia College
Library
Milledgeville, Georgia 31061

Berry College
Memorial Library
Mount Berry, Georgia 30149

Savannah State College
State College Branch
Library-Periodicals
Savannah, Georgia 31404

Georgia Southern College
Library
Statesboro, Georgia 30458

Valdosta State College
Richard H. Powell Library
Valdosta, Georgia 31601

Hawaii

University of Hawaii
Library
Honolulu, Hawaii 96822

Church College of Hawaii
Ralph E. Woolley Library
Laie, Oahu, Hawaii 96762

Idaho

Idaho State Department of Education
200 State Office Building
650 W. State Street
Boise, Idaho 83702

Idaho State University
Library
Pocatello, Idaho 83201

Illinois

Illinois State University
Library - Serials Department
Bloomington - Normal, Illinois 61761

Southern Illinois University
Library - Serials Department
Carbondale, Illinois 62901

Eastern Illinois University
Booth Library
Charleston, Illinois 61920

Chicago State University
Library
95th Street and King Drive
Chicago, Illinois 60628

ERIC MICROFICHE COLLECTIONS

Loyola University
Julia D. Lewis Library
820 North Michigan, Room 1200
Chicago, Illinois 60611

Northeastern Illinois University
Library (CICS)
Bryn Mawr at St. Louis Avenue
Chicago, Illinois 60625

U.S. Office of Education/DHEW
Region V
226 West Jackson Boulevard
Chicago, Illinois 60607

University of Chicago
Library - Serials Records Department
Chicago, Illinois 60637

University of Illinois at Chicago Circle
Library
Chicago, Illinois 60680

ERIC Clearinghouse in Career Education
Northern Illinois University
204 Gabel Hall
Dekalb, Illinois 60115

Northern Illinois University
Swen Franklin Parson Library
Dekalb, Illinois 60115

Southern Illinois University
Lovejoy Library
Edwardsville, Illinois 62025

National College of Education
Library
2840 Sheridan Road
Evanston, Illinois 60201

Northwestern University
Library
Evanston, Illinois 60201

Western Illinois University
Memorial Library
Macomb, Illinois 61455

Moraine Valley Community College
10900 South 88th Avenue
Palos Hills, Illinois 60465

Governors State University
University Library
Park Forest South, Illinois 60466

Bradley University
Library
1501 West Bradley Avenue
Peoria, Illinois 61606

Concordia Teachers College
Klinck Memorial Library
7400 Augusta Street
River Forest, Illinois 60305

Illinois Office of Education
Media and Resources Center
100 North First Street
Springfield, Illinois 62777

Sangamon State University
Library - Documents Department
Springfield, Illinois 62708

ERIC Clearinghouse on Early Childhood Education
University of Illinois, College of Education
805 West Pennsylvania Avenue
Urbana, Illinois 61801

ERIC Clearinghouse on Reading and Communication Skills
National Council of Teachers of English
1111 Kenyon Road
Urbana, Illinois 61801

University of Illinois
Library - Documents Division
Urbana, Illinois 61801

Indiana

Indiana University
School of Education Library
Bloomington, Indiana 47401

School Research Information Service (SRIS)
Phi Delta Kappa
8th and Union Street
Bloomington, Indiana 47401

University of Evansville
Library
Evansville, Indiana 47702

Saint Francis College
Library
2701 Spring Street
Fort Wayne, Indiana 46808

Purdue University
Library - Serials Unit
Lafayette, Indiana 47907

Ball State University
Library
Muncie, Indiana 47306

University of Notre Dame
Memorial Library
Notre Dame, Indiana 46556

Indiana State University
Cunningham Memorial Library
Terre Haute, Indiana 47809

Iowa

Iowa State University
Library
Ames, Iowa 50010

University of Northern Iowa
Library - Serials
Cedar Falls, Iowa 50613

Drake University
Cowles Library
28th and University
Des Moines, Iowa 50311

Iowa State Department of Public Instruction
Library
Grimes State Office Building
Des Moines, Iowa 50319

American College Testing Program
Library
Iowa City, Iowa 52240

University of Iowa
Library
Iowa City, Iowa 52242

Kansas

Emporia Kansas State College
William Allen White Library
Emporia, Kansas 66801

Fort Hays Kansas State College
Forsyth Library
Hays, Kansas 67601

University of Kansas
Library
Periodicals Section
Lawrence, Kansas 66044

Kansas State University
Library
Manhattan, Kansas 66506

Johnson County Community College
Educational Media Center
College Boulevard and Quivira Road
Overland Park, Kansas 66210

Kansas State College of Pittsburg
Porter Library
Pittsburg, Kansas 66762

Kansas State Department of Education
120 E. 10th Street
Topeka, Kansas 66612

Wichita State University
Library
Wichita, Kansas 67208

Kentucky

Western Kentucky University
Margie Helm Library
Bowling Green, Kentucky 42101

Kentucky Department of Education
Professional Library, ERIC Center
State Office Building
Frankfort, Kentucky 40601

Northern Kentucky State College
Library
Louis B. Nunn Road
Highland Heights, Kentucky 41076

University of Kentucky
Margaret I. King Library
Government Documents Department
Lexington, Kentucky 40506

University of Louisville
Main Library
Belknap Campus
Louisville, Kentucky 40208

Morehead State University
Johnson Camden Library
Morehead, Kentucky 40351

Murray State University
Library
Murray, Kentucky 42071

Eastern Kentucky University
John Grant Crabbe Library
Richmond, Kentucky 40478

Louisiana

Louisiana State University
Library - Social Science Division
Baton Rouge, Louisiana 70803

ERIC MICROFICHE COLLECTIONS

Louisiana State Department of Education
Research Coordinating Unit
626 N. Fourth Street
Baton Rouge, Louisiana 70804

Grambling State University
Grambling, Louisiana 71245

Southeastern Louisiana University
Sims Memorial Library
Hammond, Louisiana 70401

University of Southwestern Louisiana
Dupre Library
Lafayette, Louisiana 70501

McNeese State University
Frazer Memorial Library
Lake Charles, Louisiana 70601

Northeast Louisiana University
Sandel Library
Monroe, Louisiana 71201

University of New Orleans
Earl K. Long Library
Lake Front
New Orleans, Louisiana 70122

Louisiana Technological University
Prescott Memorial Library
Ruston, Louisiana 71270

Nicholls State University
Library
Thibodaux, Louisiana 70301

Maine

Maine State Department of Education
Planning and Evaluation, ERIC Office
State House
Augusta, Maine 04330

University of Maine
Raymond H. Fogler Library
Orono, Maine 04473

Maryland

Ann Arundel County Public Schools
Media Service
2644 Riva Road
Annapolis, Maryland 21401

Johns Hopkins University
Milton S. Eisenhower Library
Baltimore, Maryland 21218

Loyola College
Library
4501 North Charles Street
Baltimore, Maryland 21210

Maryland State Department of Education
Media Services Center
B.W.I. Airport
Baltimore, Maryland 21240

Towson State College
Albert S. Cook Library - Serials
Baltimore, Maryland 21204

ERIC Processing and Reference Facility
Operations Research Inc., Information Systems Division
4833 Rugby Avenue, Suite 303
Bethesda, Maryland 20014

Bowie State College
Graduate Division
Library
Bowie, Maryland 20715

University of Maryland
College of Education, Room 0102
College Park, Maryland 20742

University of Maryland
McKeldin Library
Serials Division
College Park, Maryland 20742

University of Maryland - Eastern Shore
Library
Princess Anne, Maryland 21853

Montgomery County Public Schools
Educational Materials Laboratory
850 Hungerford Drive, Room A-41
Rockville, Maryland 20850

Salisbury State College
Blackwell Library
Salisbury, Maryland 21801

Western Maryland College
Library
Westminster, Maryland 21157

Massachusetts

University of Massachusetts
Graduate Research Center
Library
Amherst, Massachusetts 01002

Boston Public Library
666 Boylston
Boston, Massachusetts 02117

Boston State College
Library
625 Huntington Avenue
Boston, Massachusetts 02115

Boston University
School of Education
765 Commonwealth Avenue
Boston, Massachusetts 02215

Massachusetts Board of Education
Greater Boston Regional Education Center
Boston, Massachusetts 02133

Massachusetts Department of Education
Department Library
182 Tremont Street, 11th Floor
Boston, Massachusetts 02111

Massachusetts Teachers Association
20 Ashburton Road
Boston, Massachusetts 02108

Northeastern University
Library
360 Huntington Avenue
Boston, Massachusetts 02115

U.S. Office of Education/DHEW
Region I
John Fitzgerald Kennedy Federal Building
Boston, Massachusetts 02203

Bridgewater State College
Maxwell Library
Bridgewater, Massachusetts 02324

Northeastern University
Suburban Campus
Burlington, Massachusetts 01803

Harvard University
Graduate School of Education
Monroe C. Gutman Library
Appian Way
Cambridge, Massachusetts 02138

New England Resources Center for Occupational Education
44 Battle Street
Cambridge, Massachusetts 02138

Merrimack Education Center
101 Mill Road
Chelmsford, Massachusetts 01824

Boston College
Library
Chestnut Hill,
Massachusetts 02167

Fitchburg State College
Library
Fitchburg, Massachusetts 01420

Framingham State College
Henry Whittemore Library
Framingham, Massachusetts 01701

Lowell State College
Library
Rolfe Street
Lowell, Massachusetts 01854

Tufts University
Wessell Library
Medford, Massachusetts 02155

Education Development Center
55 Chapel Street
Newton, Massachusetts 02160

Pittsfield Regional Education Center
Project A.B.E. - LEAP
188 South Street
Pittsfield, Massachusetts 01201

Quincy Public Schools
Department of Library Services
100 Brooks Avenue
Quincy, Massachusetts 02169

Salem State College
Salem, Massachusetts 01970

Springfield College
Library
Alden Street
Springfield, Massachusetts 01109

Career Education Document Information System (CEDIS)
2 Sunlife Executive Park
100 Worcester Street
Wellesley Hills,
Massachusetts 02181

Westfield State College
Library
Westfield, Massachusetts 01085

Michigan

ERIC Clearinghouse on Counseling and Personnel Services
University of Michigan
School of Education, Room 2108
Ann Arbor, Michigan 48104

ERIC MICROFICHE COLLECTIONS

University of Michigan
General Library
Ann Arbor, Michigan 48104

Andrews University
James White Library
College Station
Berrin Springs, Michigan 49104

University of Michigan
Dearborn Campus Library
4901 Evergreen Road
Dearborn, Michigan 48128

Detroit Board of Education
Professional Library
1032 School Center Building
5057 Woodward Avenue
Detroit, Michigan 48202

Wayne State University
General Library - Education Division
Detroit, Michigan 48202

Michigan State University
Library - Serials Department
East Lansing, Michigan 48823

Genesee Community College
Charles Stewart Mott Library
1401 E. Court Street
Flint, Michigan 48503

Western Michigan University
Dwight B. Waldo Library
Kalamazoo, Michigan 49001

Michigan Department of Education
Library
735 E. Michigan Avenue
Lansing, Michigan 48933

Northern Michigan University
Marquette, Michigan 49855

Central Michigan University
Library - Documents Section
Mount Pleasant, Michigan 48858

Oakland Schools
Resource Center
2100 Pontiac Lake Road
Pontiac, Michigan 48054

Oakland University
Kresge Library
Rochester, Michigan 48063

Wayne County School District
Professional Resource Center
33030 Van Born Road
Wayne, Michigan 48184

Eastern Michigan University
Library
Ypsilanti, Michigan 48197

Minnesota

Bemidji State College
Clark Library
Bemidji, Minnesota 55601

Mankato State College
Memorial Library
Maywood & Ellis Street
Mankato, Minnesota 56001

University of Minnesota
Library - Serials Records Divison
Minneapolis, Minnesota 55455

Moorhead State College
Library - Serials Department
Moorhead, Minnesota 56560

St. Cloud State College
Library
St. Cloud, Minnesota 56301

College of St. Thomas
O'Shaughnessy Library
Summit and Cleveland
St. Paul, Minnesota 55105

Winona State College
Maxwell Library
Winona, Minnesota 55987

Mississippi

Delta State University
Library
Cleveland, Mississippi 38732

Mississippi State College for Women
J. C. Fant Library
Columbus, Mississippi 39701

University of Southern Mississippi
Library
Hattiesburg, Mississippi 39401

Jackson State University
1325 Lynch Street
Jackson, Mississippi 39217

Mississippi Department of Education
Educational Media Service
901 Sillers Building
Jackson, Mississippi 39205

Mississippi State University
Meridian Branch
5520 Highway 19 North
Meridian, Mississippi 39301

Mississippi State University
Mitchell Memorial Library
Mississippi State,
Mississippi 39762

University of Mississippi
Library
University, Mississippi 38677

Missouri

Southeast Missouri State College
Kent Library
Cape Girardeau, Missouri 63701

University of Missouri - Columbia
University Library
Columbia, Missouri 65201

Missouri State Department of Education
Jefferson Building
Jefferson City, Missouri 65101

Missouri Southern College
Library
Newman and Duquesne Road
Joplin, Missouri 64801

Kansas City Technical Education Center
1215 E. Truman Road
Kansas City, Missouri 64106

Mid-Continent Regional Education Laboratory
Resource Center
104 E. Independence Avenue
Kansas City, Missouri 64106

U.S. Office of Education /DHEW
Region VII
601 East 12th Street
Kansas City, Missouri 64106

University of Missouri
General Library
Kansas City, Missouri 64110

Northeast Missouri State University
Pickler Memorial Library
Kirksville, Missouri 63501

Southwest Missouri State University
Library
Springfield, Missouri 65802

St. Louis Board of Education
Library Services Center
1100 Farrar Street
St. Louis, Missouri 63107

University of Missouri - St. Louis
Library - Documents Section
8001 Natural Bridge Road
St. Louis, Missouri 63121

Washington University
Library
Audio-Visual Department
St. Louis, Missouri 63130

Central Missouri State College
Ward Edwards Library
Warrensburg, Missouri 64093

Montana

Eastern Montana College
Library
Billings, Montana 59101

Montana State University
Library
Bozeman, Montana 59715

Northern Montana College
Library
Havre, Montana 59501

Nebraska

Chadron State College
Reta King Library
Chadron, Nebraska 69227

Kearney State College
Library
Kearney, Nebraska 68847

University of Nebraska
Library
Lincoln, Nebraska 68508

University of Nebraska at Omaha
Gene Eppley Library
Omaha, Nebraska 68101

Wayne State College
Library
Wayne, Nebraska 68787

ERIC MICROFICHE COLLECTIONS

Nevada

University of Nevada - Las Vegas
Library
Las Vegas, Nevada 89109

University of Nevada - Reno
Library
Reno, Nevada 89507

New Hampshire

New Hampshire Department of Education
Statehouse Annex
Concord, New Hampshire 03301

University of New Hampshire
Library
Durham, New Hampshire 03824

Plymouth State College of the University of New Hampshire
Lamson Library
Plymouth, New Hampshire 03264

New Jersey

Educational Improvement Center
Northwest New Jersey
Halko Drive
Cedar Knolls, New Jersey 07927

New Jersey Residential Manpower Center
Occupational Research Center
Building 871
Camp Kilmer
Edison, New Jersey 08817

Glassboro State College
SEIMC
Savitz Library
Glassboro, New Jersey 08028

Jersey City State College
Forrest A. Irwin Library
Curriculum Materials Center
2039 Kennedy Boulevard
Jersey City, New Jersey 07305

Rutgers University
Alexander Library
New Brunswick, New Jersey 08901

Parsippany Troy Hills Board of Education
Parsippany, New Jersey 07054

Phillipsburg Free Public Library
Phillipsburg, New Jersey 08865

ERIC Clearinghouse on Tests, Measurement, and Evaluation
Educational Testing Service
Princeton, New Jersey 08540

Monmouth County Library
Eastern Branch
Area Reference Center
Route No. 35
Shrewsbury, New Jersey 07701

Seton Hall University
McLaughlin Library
South Orange, New Jersey 07079

Rider College
Library
2083 Lawrenceville Road
Trenton, New Jersey 08602

Trenton State College
Roscoe L. West Library
Pennington Road
Trenton, New Jersey 08625

Kean College of New Jersey
Library
Morris Ave
Union, New Jersey 07083

Montclair State College
Harry A. Sprague Library
Upper Montclair, New Jersey 07042

William Paterson State College
Library
300 Pompton Road
Wayne, New Jersey 07470

New Mexico

Southwestern Cooperative Educational Laboratory, Inc.
229A Truman, N. E.
Albuquerque, New Mexico 87106

University of New Mexico
Zimmerman Library - Serials Department
Albuquerque, New Mexico 87131

ERIC Clearinghouse on Rural Education and Small Schools
New Mexico State University
University Park Branch
Las Cruces, New Mexico 88003

New Mexico State University
Library
Las Cruces, New Mexico 88001

New Mexico Highlands University
Donnelly Library
Las Vegas, New Mexico 87701

New Mexico State Library
300 Don Gaspar
Sante Fe, New Mexico 87501

Western New Mexico University
Miller Library
Silver City, New Mexico 88061

New York

New York State Library
State Education Building
Albany, New York 12224

SUNY at Albany
1400 Washington Avenue
Albany, New York 12302

Board of Cooperative Educational Services
6 South Street
Belmont, New York 14813

SUNY College at Brockport
Library
Brockport, New York 14420

Fordham University
Library
Bronx, New York 10458

James Monroe High School
1300 Boynton Avenue
Bronx, New York 10472

Lehman College
Library
Bedford Park Boulevard West
Bronx, New York 10468

Manhattan College
Cardinal Hayes Library
Periodicals Department
Bronx, New York 10471

City University of New York
Brooklyn College Library
Serials Section
Brooklyn, New York 11210

SUNY at Buffalo
Lockwood Library
Buffalo, New York 14214

SUNY College at Buffalo
E. H. Butler Library
1300 Elmwood Avenue
Buffalo, New York 14222

Board of Cooperative Educational Services
Service Center
455 Cuyuga Road
Cheektowaga, New York 14225

SUNY College at Cortland
Teaching Materials Center
Education Building, D-206
Cortland, New York 13045

Board of Cooperative Educational Services
Library
431 Philo Road
Elmira, New York 14903

Queens College
Paul Klapper Library
Flushing, New York 11367

SUNY College at Fredonia
Library
Fredonia, New York 14063

Adelphi University
Library
Garden City, New York 11530

SUNY College at Geneseo
Milne Library
Geneseo, New York 14454

Long Island University
Library
Greenvale, New York 11548

Hofstra University
Library
Hempstead, New York 11550

Cornell University
Albert R. Mann Library
Ithaca, New York 14850

Queensborough Public Library
89-11 Merrick Boulevard
Jamaica, New York 11432

St. Johns University
Library
Grand Central & Utopia Parkways
Jamaica, New York 11432

La Guardia Community College
31-10 Thomson Avenue
Long Island City, New York 11101

ERIC MICROFICHE COLLECTIONS

Board of Cooperative Educational Services
Curriculum Resource Center
County Route 64
Mexico, New York 13114

Essex, Hamilton, Warren & Washington County Areas
Educational Center
Mineville, New York 12956

SUNY College at New Paltz
Library
New Paltz, New York 12561

College of New Rochelle
Library
New Rochelle, New York 10801

Bank Street College of Education
Library
610 West 112th Street
New York, New York 10025

Baruch College
Library - Serials Division
156 E. 25th Street
New York, New York 10010

City University of New York
City College Library
Serials Division
Convent Avenue at W. 135th Street
New York, New York 10031

City University of New York
Graduate Studies Division Library
33 W. 42nd Street
New York, New York 10036

Columbia University
Teachers College Library
525 W. 120th Street
New York, New York 10027

ERIC Clearinghouse on Urban Education
Teachers College
Columbia University
525 West 120th Street
New York, New York 10027

Hunter College
Library
695 Park Avenue
New York, New York 10021

New York Public Library
8 E. 40th Street
New York, New York 10016

New York University
Microform Center
70 Washington Square South
New York, New York 10012

U.S. Office of Education/DHEW
Region II
Federal Building C-Room 1013
26 Federal Plaza
New York, New York 10007

John Coutts Library Services, Inc.
736 - 738 Cayuga Street
Lewiston, New York 14092

New York Institute of Technology
Library
Wheatley Road
Old Westbury, New York 11568

SUNY College at Old Westbury
Library
Old Westbury, New York 11568

SUNY College at Oneonta
James M. Milne Library
Oneonta, New York 13820

SUNY College at Oswego
Penfield Library
Oswego, New York 13126

Board of Cooperative Educational Services
Suffolk County Regional Center
201 Sunrise Highway
Patchogue, New York 11772

Board of Cooperative Educational Services
John W. Harrold Education Center
Plattsburgh, New York 12901

SUNY College at Plattsburgh
Plattsburgh, New York 12901

SUNY College at Potsdam
Frederic W. Crumb Memorial Library
Potsdam, New York 13676

University of Rochester
Library
Rochester, New York 14627

Richmond College
Library
130 Stuyvesant Place
Staten Island, New York 10301

Wagner College
Horrman Library
Staten Island, New York 10301

SUNY at Stony Brook
Library
Stony Brook, New York 11790

Rockland Community College
Library
145 College Road
Suffern, New York 10901

Syracuse City School District
910 Erie Boulevard, East
Syracuse, New York 13210

Syracuse University
Library
Carnegie Building, Room 210
Syracuse, New York 13210

Board of Cooperative Educational Services
Mohawk Region Planning Center
Spring Road
Verona, New York 13470

Nassau Board of Cooperative Educational Services
Educational Resource Center
Research Library
1196 Prospect Avenue
Westbury, New York 11590

Board of Cooperative Educational Services
Curriculum Research Center
Pinesbridge Road
Yorktown Heights, New York 10598

North Carolina

Appalachian State University
Library
Boone, North Carolina 28607

University of North Carolina
Library - Serials Section
Chapel Hill, North Carolina 27514

Charlotte-Mecklenburg Schools
Curriculum Resources Center
Charlotte, North Carolina 28201

University of North Carolina at Charlotte
UNCC Station
Charlotte, North Carolina 28223

Western Carolina University
Hunter Library
Cullowhee, North Carolina 28723

Elizabeth City State University
Library
Elizabeth City,
North Carolina 27909

Fayetteville State University
Chesnutt Library
Fayetteville, North Carolina 28301

University of North Carolina at Greensboro
Walter Clinton Jackson Library
Greensboro, North Carolina 27412

East Carolina University
Library
Greenville, North Carolina 27834

North Carolina State Department of Public Instruction
Research and Information Center
Education Building
Raleigh, North Carolina 27611

North Carolina State University
D.H. Hill Library
Raleigh, North Carolina 27607

North Dakota

University of North Dakota
Chester Fritz Library
ERIC Center
Grand Forks, North Dakota 58201

Ohio

University of Akron
Library
Akron, Ohio 44304

Ohio University
Library - Serials Department
Athens, Ohio 45701

Baldwin - Wallace College
Ritter Library
Berea, Ohio 44017

Bowling Green State University
Library - Serials Department
Bowling Green, Ohio 43403

University of Cincinnati
Main Campus Library
Serials Division
Cincinnati, Ohio 45221

ERIC MICROFICHE COLLECTIONS

Xavier University
Library
Victory Parkway & Dana Avenue
Cincinnati, Ohio 45207

Cleveland State University
Library - Serials
Cleveland, Ohio 44115

ERIC Clearinghouse for Science, Mathematics, and Environmental Education
Ohio State University
1800 Cannon Drive
Columbus, Ohio 43210

Ohio Education Association
Professional Development Division
225 East Broad Street
Columbus, Ohio 43215

Ohio State Department of Education
781 Northwest Boulevard
Columbus, Ohio 43212

Ohio State University
Library - Serials Division
1858 Neil Avenue
Columbus, Ohio 43210

Ohio State University
Research Library
Center for Vocational Education
1900 Kenny Road
Columbus, Ohio 43210

Wright State University
Library
Colonel Glenn Highway
Dayton, Ohio 45431

Kent State University
Library
Kent, Ohio 44242

Miami University
Library
Oxford, Ohio 45056

University of Toledo
Library
Toledo, Ohio 43606

Central State University
Hallie Q. Brown Library
Wilberforce, Ohio 45384

Youngstown State University
Library
410 Wick Avenue
Youngstown, Ohio 44503

Oklahoma

East Central State College
Library
Ada, Oklahoma 74820

Central State University
Library - ERIC Office
Edmond, Oklahoma 73034

University of Oklahoma
Library
401 W. Brooks, Room 130
Norman, Oklahoma 73069

Oklahoma State Regents for Higher Education
State Capitol Station
Oklahoma City, Oklahoma 73105

Oklahoma State University
Library - Serials Section
Stillwater, Oklahoma 74074

Northeastern Oklahoma State University
Library
Tahlequah, Oklahoma 74464

University of Tulsa
McFarlin Library
Tulsa, Oklahoma 74104

Southwestern State College
Library
Weatherford, Oklahoma 73096

Oregon

Southern Oregon College
Library
1250 Siskiyou Boulevard
Ashland, Oregon 97520

Oregon State University
William Jasper Kerr Library
Corvallis, Oregon 97331

ERIC Clearinghouse on Educational Management
University of Oregon
Library - South Wing
Eugene, Oregon 97403

Northwest Regional Educational Laboratory
400 Lindsay Building
710 S.W. Second Avenue
Portland, Oregon 97204

Portland State University
Library
Portland, Oregon 97207

Oregon Department of Education
Resources Dissemination Center Library
942 Lancaster Drive N.E.
Salem, Oregon 97310

Pennsylvania

Bloomsburg State College
College Library
Bloomsburg, Pennsylvania 17815

California State College
California, Pennsylvania 15419

Cheyney State College
L. P. Hill Library
Cheyney, Pennsylvania 19319

Clarion State College
Library
Clarion, Pennsylvania 16214

East Stroudsburg State College
Kemp Library
East Stroudsburg,
Pennsylvania 18301

Edinboro State College
Hamilton Library
Edinboro, Pennsylvania 16412

Pennsylvania State Library
Bureau of Technical Services
Education Building, Room 46
Harrisburg, Pennsylvania 17126

Indiana University of Pennsylvania
Library
Indiana, Pennsylvania 15701

Regional Resources Center of Eastern Pennsylvania for Special Education
443 S. Gulph Road
King of Prussia,
Pennsylvania 19406

Research and Information Services for Education (RISE)
198 Allendale Road
King of Prussia,
Pennsylvania 19406

Kutztown State College
Library
Kutztown, Pennsylvania 19530

Lock Haven State College
Stevenson Library
Lock Haven, Pennsylvania 17745

Mansfield State College
Library
Mansfield, Pennsylvania 16933

Pennsylvania State University
Library
Capitol Campus
Middletown, Pennsylvania 17057

Millersville State College
Ganser Library
Millersville, Pennsylvania 17551

Bucks County Community College
Library - Swamp Road
Newtown, Pennsylvania 18940

Research for Better Schools, Inc.
Library
1700 Market Street
Philadelphia, Pennsylvania 19103

Saint Joseph's College
Library
City Avenue at 54th Street
Philadelphia, Pennsylvania 19131

School District of Philadelphia
Pedagogical Library
21st Street South of the Parkway
Philadelphia, Pennsylvania 19103

Temple University
Library - Serials Section
Philadelphia, Pennsylvania 19122

U.S. Office of Education/DHEW
Region III
401 N. Broad Street
Philadelphia, Pennsylvania 19108

University of Pittsburgh
Hillman Library
Pittsburgh, Pennsylvania 15260

Shippensburg State College
Library
Shippensburg, Pennsylvania 17257

Slippery Rock State College
Maltby Library
Slippery Rock, Pennsylvania 16057

Pennsylvania State University
Pattee Library
University Park,
Pennsylvania 16802

West Chester State College
Francis Harvey Green Library
West Chester, Pennsylvania 19380

King's College
D. Leonard Corgan Library
Wilkes-barre, Pennsylvania 18711

Wilkes College
Eugene Shedden Farley Library
Franklin at South Street
Wilkes-barre, Pennsylvania 18703

Rhode Island

University of Rhode Island
Library
Kingston, Rhode Island 02881

Rhode Island College
James P. Adams Library
600 Mt. Pleasant Avenue
Providence, Rhode Island 02908

South Carolina

Charleston County School District
Media Center
3 Chisolm Street
Charleston, South Carolina 29401

Citadel Military College
Library
Charleston, South Carolina 29409

Clemson University
Library
Clemson, South Carolina 29631

South Carolina State Library
1500 Senate Drive
Columbia, South Carolina 29201

Darlington County School District
Information and Publication Center
255 Blue Street
Darlington, South Carolina 29532

South Carolina State College
Miller F. Whittaker Library
Orangeburg, South Carolina 29115

Winthrop College
Dacus Library
Rockhill, South Carolina 29730

South Dakota

South Dakota State Library
322 South Fort Street
Pierre, South Dakota 57501

University of South Dakota
I. D. Weeks Library
Vermillion, South Dakota 57069

Tennessee

Austin Peay State University
Woodward Library
Clarksville, Tennessee 37040

Tennessee Technological University
Jere Whitson Memorial Library
Cookeville, Tennessee 38501

East Tennessee State University
Library
Johnson City, Tennessee 37601

University of Tennessee at Knoxville
Research Coordinating Unit
909 Mountcastle Street
Knoxville, Tennessee 37916

Memphis State University
John Brister Library
Memphis, Tennessee 38111

Middle Tennessee State University
Library
Murfreesboro, Tennessee 37130

Joint University Libraries
Nashville, Tennessee 37203

University of Tennessee at Nashville
Library
323 McLemore Avenue
Nashville, Tennessee 37203

Texas

Abilene Christian College
Library
Abilene, Texas 79501

Juarez-Lincoln Center
Library
3001 S. Congress
Austin, Texas 78704

Southwest Educational Development Laboratory
211 East Seventh Street
Austin, Texas 78701

Texas Education Agency
Resource Center, Library
201 East 11th Street
Austin, Texas 78701

Texas Information Service
Education Service Center
Region XIII
6504 Tracor Lane
Austin, Texas 78721

University of Texas at Austin
Library
Austin, Texas 78712

Lamar University
Library
Beaumont, Texas 77710

West Texas State University
Library
Canyon, Texas 79016

Texas A & M University
Library
College Station, Texas 77843

East Texas State University
Library
Commerce, Texas 75428

Texas A & I University at Corpus Christi
Library
Corpus Christi, Texas 78411

Crystal City Independent School District
805 East Crockett
Crystal City, Texas 78839

Dallas Baptist College
3000 Florina Road
Library
Learning Center
Dallas, Texas 75211

Dallas Public Library
1954 Commerce Street
Dallas, Texas 75202

North Texas State University
Library
Denton, Texas 76203

Texas Woman's University
Library
Denton, Texas 76204

Pan American University
Library
Edinburg, Texas 78539

Education Service Center
Region XIX
6611 Boeing Street
El Paso, Texas 79925

University of Texas at El Paso
Library-Reference Office
El Paso, Texas 79968

Houston Baptist University
Houston, Texas 77036

Texas Southern University
University Library
3201 Wheeler Avenue
Houston, Texas 77004

University of Houston
Library
2700 Bay Area Boulevard
Houston, Texas 77058

University of Houston
Library
Cullen Boulevard
Houston, Texas 77004

Sam Houston State University
Library
Huntsville, Texas 77340

University of Dallas
Library
University of Dallas Station
Irving, Texas 75060

Central Texas College
Highway 190 West
Killeen, Texas 76541

Texas A & I University at Kingsville
Library
Kingsville, Texas 78363

Texas A & I University at Laredo
Library
Laredo, Texas 78040

Education Service Center
Region XVII
713 Citizens Tower
Lubbock, Texas 79401

Texas Technological University
Library
Lubbock, Texas 70409

Education Service Center
Region VIII
100 North Riddle Street
Mount Pleasant, Texas 75455

Stephen F. Austin State University
Library
Nacogdoches, Texas 75961

ERIC MICROFICHE COLLECTIONS

Ector County Independent School District
Curriculum Library
Odessa, Texas 79760

University of Houston at Clear Lake City
Library
945 E. Shaw
Pasadena, Texas 77502

Education Service Center
Region X
Richardson, Texas 75080

University of Texas at Dallas
Library
Richardson, Texas 75080

Angelo State University
Library
San Angelo, Texas 76901

Our Lady of the Lake College
Library
San Antonio, Texas 78285

Trinity University
Chapman Graduate Center Library
715 Stadium Drive
San Antonio, Texas 78284

University of Texas at San Antonio
4242 Piedras East
San Antonio, Texas 78225

Southwest Texas State University
Library
San Marcos, Texas 78666

Texarkana College
Palmer Memorial Library
Texarkana, Texas 75501

Texas College
Library
Tyler, Texas 75701

Baylor University
1919 South First Street
Waco, Texas 76706

Education Service Center
Region IX
3014 Old Seymour Road
Wichita Falls, Texas 76309

Utah

Utah State University
Merrill Library
Logan, Utah 84321

Weber State College
Library
Ogden, Utah 84403

Brigham Young University
Library
Provo, Utah 84602

University of Utah
Library
Salt Lake City, Utah 84112

Utah State Board of Education
Technical Assistance Reference Center
1400 University Club Building
136 East South Temple Street
Salt Lake City, Utah 84111

Vermont

Twin State Educational Information System
Vermont State Department of Education
Montpelier, Vermont 05602

Virginia

Alexandria City Schools
Nichols Memorial Professional Library
3330 King Street
Alexandria, Virginia 22313

Arlington County Public Schools
Professional Library
1426 N. Quincy Street
Arlington, Virginia 22207

ERIC Clearinghouse on Languages and Linguistics
Center for Applied Linguistics
1611 North Kent Street
Arlington, Virginia 22209

Virginia Polytechnic Institute and State University
Library
Blacksburg, Virginia 24061

University of Virginia
Alderman Library
Charlottesville, Virginia 22901

Fairfax County Public Schools
Professional Reference Library
3500 Old Lee Highway
Fairfax, Virginia 22030

George Mason University
Library
Fairfax, Virginia 22030

ERIC Clearinghouse on Reading and Communication Skills
Speech Communication Module
5205 Leesburg Pike
Falls Church, Virginia 22041

Madison College
Madison Memorial Library
Harrisonburg, Virginia 22801

Old Dominion University
Hughes Library
Norfolk, Virginia 23508

Virginia State College
Johnston Memorial Library
Petersburg, Virginia 23803

ERIC Clearinghouse on Handicapped and Gifted Children
1920 Association Drive
Reston, Virginia 22091

Virginia Polytechnic Institute and State University
Reston Reserve Library
12100 Sunset Hills Road
Reston, Virginia 22090

Virginia Commonwealth University
James Branch Cabell Library
901 Park Avenue
Richmond, Virginia 23220

Virginia State Board of Education
1312 E. Grace Street
Room 224
Richmond, Virginia 23216

College of William and Mary
Earl Gregg Swen Library
Williamsburg, Virginia 23185

Washington

Bellevue School District No. 405
310 - 102nd Avenue, N. E.
Bellevue, Washington 98004

Western Washington State College
Wilson Library
Bellingham, Washington 98225

Eastern Washington State College
Library
Cheney, Washington 99004

Central Washington State College
Victor J. Bouillon Library
Ellensburg, Washington 98926

Superintendent of Public Instruction
Library
Old Capitol Building
Olympia, Washington 98504

Intermediate School District No. 123
Road 40 and Court Street
Pasco, Washington 99302

Washington State University
Library
Pullman, Washington 99163

Seattle Education Service District No. 110
110 Crockett Street
Seattle, Washington 98109

Seattle Pacific College
Weter Memorial Library
3307 3rd W.
Seattle, Washington 98119

Seattle School District No. 1
Planning Research and Evaluation Unit
815 Fourth Avenue N.
Seattle, Washington 98109

University of Washington
Library
Seattle, Washington 98195

West Virginia

Bluefield State College
Library
Bluefield, West Virginia 24701

Appalachia Educational Laboratory, Inc.
Research and Evaluation Division
Charleston, West Virginia 25325

West Virginia State Department of Education
State Office Building No. 6
Charleston, West Virginia 25305

Glenville State College
Robert F. Kidd Library
Glenville, West Virginia 26351

ERIC MICROFICHE COLLECTIONS

Marshall University
Huntington, West Virginia 25701

West Virginia College of Graduate Studies
Hill Hall
Institute, West Virginia 25112

West Virginia Institute of Technology
Library
Montgomery, West Virginia 25136

West Virginia University
Human Resources & Education
Special Education Department
805 Allen Hall
Morgantown, West Virginia 26506

West Virginia University
Library
Morgantown, West Virginia 26506

Wisconsin

Wisconsin State University - Eau Claire
William D. McIntyre Library
Eau Claire, Wisconsin 54701

University of Wisconsin - Parkside
Library
Wood Road
Kenosha, Wisconsin 53140

University of Wisconsin - La Crosse
Murphy Library
1631 Pine Street
La Crosse, Wisconsin 54601

Madison Public Schools
Educational Reference Library
545 West Dayton Street
Madison, Wisconsin 53703

University of Wisconsin - Madison
1000 Bascom Mall
154 Education Building
Madison, Wisconsin 53706

Wisconsin Board of Vocational Technical and Adult Education
4802 Sheboygan Avenue
Madison, Wisconsin 53702

Wisconsin Department of Public Instruction
Professional Library
126 Langdon Street
Madison, Wisconsin 53714

University of Wisconsin - Stout
Robert L. Pierce Library
Menomonie, Wisconsin 54751

Alverno College
Library - Serials
3401 South 39th Street
Milwaukee, Wisconsin 53215

University of Wisconsin - Milwaukee
Library
2500 E. Kenwood Boulevard
Milwaukee, Wisconsin 53211

University of Wisconsin - Oshkosh
Forrest R. Polk Library
Oshkosh, Wisconsin 54901

Waukesha County Technical Institute
800 Main Street
Pewaukee, Wisconsin 53072

University of Wisconsin - Platteville
Library - Serials
725 West Main Street
Platteville, Wisconsin 53818

University of Wisconsin - River Falls
Chalmer Davie Library
River Falls, Wisconsin 54022

University of Wisconsin - Superior
Hill Library
Superior, Wisconsin 54880

University of Wisconsin - White Water
Library
White Water, Wisconsin 53190

Wyoming

Wyoming State Department of Education
State Office Building - West
Cheyenne, Wyoming 82002

University of Wyoming
Library
Laramie, Wyoming 82070

FOREIGN

Australia

University of Queensland
Main Library
St. Lucia
Brisbane, Australia

Mount Gravatt Teachers College
Library
Mount Gravatt Q. 4122, Australia

University of New England
Library
Armidale
New South Wales 2351, Australia

National Library of Australia
Canberra, Act 2600
Australia

Macquarie University
Library
North Ryde
New South Wales 2113
Australia

Monash University
Library
Clayton, Victoria 3168
Australia

Western Australian Institute of Technology
Library
Hayman Road
Bentley, West Australia 6102
Australia

Canada

Calgary Board of Education
Education Media Selection Center
307 55th Avenue S.W.
Calgary, Alberta T2H 0A1
Canada

University of Calgary
Library - Government Publications
2920 24th Avenue, N.W.
Calgary, Alberta T2N 1N4
Canada

University of Alberta
Library
Edmonton, Alberta T6G 2E1
Canada

University of Lethbridge
Library
Lethbridge, Alberta T1K 3M4
Canada

University of British Columbia
Library - Government Publications
Vancouver,
British Columbia V6T 1W5
Canada

University of Victoria
McPherson Library
Victoria, British Columbia
Canada

Brandon University
John E. Robbins Library
Brandon, Manitoba R7A 6A9
Canada

ERIC MICROFICHE COLLECTIONS

Department of Youth and Education
Library
1181 Portage Avenue, Room 206
Winnipeg, Manitoba R3T 2N2
Canada

University of Manitoba
Elizabeth Dafoe Library
Periodical Department
Winnipeg, Manitoba R3E O2W
Canada

Universite de Moncton
Bibliotheque Champlain
Moncton, New Brunswick
Canada

Mount Allison University
Bell Library
Sackville, New Brunswick
Canada

Memorial University of Newfoundland
Education Library
St. John's, Newfoundland
Canada

Nova Scotia Teachers College
Library
Truro, Nova Scotia
Canada

University of Guelph
Library
Guelph, Ontario N1G 2W1
Canada

Queen's University
Library
Faculty of Education
Duncan McArthur Hall
Kingston, Ontario K7I 3N6
Canada

University of Western Ontario
General Library
Lawson Memorial Building
London, Ontario N6A 3K7
Canada

National Library of Canada
395 Wellington Street
Ottawa, Ontario K1A 0N4
Canada

University of Ottawa
Central Library
Ottawa, Ontario K1N 6N5
Canada

Brock University
Library Document Section
Decew Campus
St. Catherines, Ontario L2S 3A1
Canada

Board of Education - Toronto
Education Centre
Library
155 College Street
Toronto, Ontario M5T 1H6
Canada

Ontario Institute for Studies in Education
Library
252 Bloor Street, West
Toronto, Ontario M5R IV5
Canada

Toronto Metropolitan Separate School Board
Professional Library
146 Laird Drive
Toronto, Ontario M4G 3V8
Canada

Borough of North York
F.W. Minkler Library
Educational Administration Centre
5050 Yonge Street
Willowdale, Ontario M2N 5N8
Canada

University de Quebec
Library
Chicoudimi
Quebec
Canada

Concordia University
Library
1445 de Maisonneuve Boulevard
Montreal, Quebec H3G 1M8
Canada

McGill University
Library
3459 McTavish Street
Montreal 101, Quebec
Canada

Ministere de l'Education
Centre de Documentation
Service des Moyens Techniques d'Enseignement
655 Rue Parthenais
Montreal, Quebec H2K 3R7 Canada

Sir George Williams University
Library
Montreal 25, Quebec
Canada

Universite de Montreal
Bibliotheque
Faculte des Sciences De L'Education
Montreal 101, Quebec H3A 1Y1
Canada

Universite de Quebec a Montreal
Bibliotheques
Case Postale 8889
Montreal, Quebec H3C 3P8
Canada

Ministere des Communications
Service des Periodiques
Edifice G - Rez de Chaussee
675 Street, Cyrille Est
Quebec, Quebec
Canada

Universite de Quebec
Services Universitaires dans le Nord-Quest
C. P. 700 Rouyn
Quebec, Quebec J9X 5C6
Canada

Universite Laval
Bibliotheque Generale
Quebec 10, Quebec
Canada

Universite de Sherbrooke
Bibliotheque
Sherbrooke, Quebec
Canada

Department of Manpower and Immigration
Training Research and Development
8th Street East
Prince Albert,
Saskatchewan S6V 5T2 Canada

University of Regina
Library
Regina, Saskatchewan S4S 0A2
Canada

University of Saskatchewan
Library
Regina Campus
Regina, Saskatchewan S7N 0W0
Canada

University of Saskatchewan
Library
Saskatoon, Saskatchewan S7N 0W0
Canada

Denmark

Denmark Educational Library
Leroso Parkalle 101
DK 2100
Copenhagen O
Denmark

England

National Lending Library For Science and Technology
Boston Spa, Yorkshire
England

Germany

August Raader-Fuchhandlung Universitysliteratur
Taschenbuchladen
44 Munster/Wetf
Drubbel 19, Post Fach 1309
(0251)44571 Ferhur, Germany

U.S. Dependent Schools
European Area
Superintendents Office
Karlsruhe
Germany

Padagogisches Zentrum Bibliothek
Berliner Str. 40/41
1 Berlin 31
Germany

Guam

University of Guam
Robert F. Kennedy Library
Agana, Guam 96910
Guam

Japan

U. S. Asiatic Co., Ltd.
Tsutsumi Building
13-12 Shimbashi 1-Chome
Minato Ku, Tokyo
Japan

Mexico

Ciudad Universitaria
Direccion General de Bibliotecas
Biblioteca Central-Entrepiso
Mexico 20, D. F. Mexico

Servicio Nacional (ARMO)
Centro de Informacion Tecnica Y Documentacion
Calz. Atzcapotzalco La Villa 209
Mexico 16, D.f.
Mexico

ERIC MICROFICHE COLLECTIONS

Netherlands

Bernard Van Leer Foundation
Koninginnegracht 52
The Hague
Netherlands

Norway

Universitetbiblioteket 1 Oslo
Royal University Library
Drammensveien 42
Oslo 2
Norway

Puerto Rico

Inter American University of Puerto Rico
Library - San Juan Campus
405 Ponce de Leon Avenue
Apartado 1293
Hato Rey, 00919 Puerto Rico

Puerto Rico Department of Education
Research Coordinating Units
Tres Monjitas
Hato Rey, 00931
Puerto Rico

Catholic University of Puerto Rico
Encarnacion Valdes Library
Ponce, 00731
Puerto Rico

University of Puerto Rico
Biblioteca General
Rio Piedras, 00931
Puerto Rico

Saudi Arabia

Ministry of Education
Educational Data Unit
Riyadh, Saudi Arabia

Sweden

Statens Psykologisk Pedagogiska
Bibliotek
Stockholm 23
Sweden

Switzerland

UNESCO
International Bureau of Education
Palais Wilson
1211 Geneve 14
Switzerland

Virgin Islands

College of the Virgin Islands
St. Croix Campus Library
St. Croix, 00850
Virgin Islands

College of the Virgin Islands
Library
St. Thomas, 00801
Virgin Islands

ERIC DOCUMENT REPRODUCTION SERVICE

COMPUTER MICROFILM INTERNATIONAL, CORP. (CMIC)

P.O. BOX 190 ARLINGTON, VIRGINIA 22210

ORDER FORM

BILL TO: ______________________

SHIP TO: ______________________

ED NUMBER	NO. OF COPIES MF	NO. OF COPIES HC	UNIT PRICE	TOTAL

☐ PREPAID

TAX EXEMPT NO. ______________

ACCOUNT NO. ______________

SUB TOTAL	
SALES TAX	
POSTAGE	
TOTAL	

IMPORTANT INSTRUCTIONS

- **ORDER BY ED NO. (6 DIGITS)**
  See *Research in Education*
- **SPECIFY EITHER:**
  Microfiche (MF)
  or
  Paper Copy (HC)
- **ENTER UNIT PRICE**
  Include Postage
  (See Reverse Side)
- **ENCLOSE CHECK OR MONEY ORDER**
- **MAIL TO:**
  EDRS
  P.O. Box 190
  Arlington, Virginia 22210
- **COMPLETE AND SIGN BELOW**

Purchase Order No. ______________

Date ______________

Signature ______________

Title or Dept. ______________

ERIC DOCUMENT REPRODUCTION SERVICE

PRICE LIST

MICROFICHE (MF)		PAPER COPY (HC)	
Number	Price	Number	Price
1 to 5	$ .75	1 to 25	$1.50
6	.90	26 to 50	1.85
7	1.05	51 to 75	3.15
8	1.20	76 to 100	4.20
Each additional microfiche	.15	Each additional 25 pages	1.20
Postage: $.18 for up to 60 microfiche $.08 for each additional 60 fiche		**Postage:** $.18 for first 60 pages $.08 for each additional 60 pages	

STANDING ORDERS

Subscription orders of microfiche copies of all ERIC reports announced in each issue of **Research in Education** average $116 per month at the rate of 7.8¢ per microfiche. Postage extra.

BACK COLLECTIONS (postage included)

Reports in *Research in Education for* 1966 and 1967	$ 351.25
Reports in *Research in Education for* 1968	1057.37
Reports in *Research in Education for* 1969	1261.43
Reports in *Research in Education for* 1970	1284.37
Reports in *Research in Education for* 1971	1498.96
Reports in *Research in Education for* 1972	1549.60
Reports in *Research in Education for* 1973	1351.24
Reports in *Research in Education for* 1974 (4 issues)	444.89
Entire Collection	8799.11

SPECIAL COLLECTIONS (postage included)

Office of Education Research Reports 1956-65	369.24
Pacesetters in Innovation, Fiscal Year 1966	132.05
Pacesetters in Innovation, Fiscal Year 1967	160.09
Pacesetters in Innovation, Fiscal Year 1968	102.47
Selected Documents on the Disadvantaged	30[illegible]5
Selected Documents in Higher Education	140.14
Manpower Research: Inventory for Fiscal Year 1966 and 1967	72.81
Manpower Research: Inventory for Fiscal Year 1968	40.66
Manpower Research: Inventory for Fiscal Year 1969	52.77

NOTE

1. Postage for first class airmail or foreign is extra.
2. Paper copy (HC) will be full page reproductions with heavy paper covers.

TERMS AND CONDITIONS

1. PRICE LIST

The prices set forth herein may be changed without notice; however, any price change will be subject to the approval of the National Institute of Education Contracting Officer.

2. PAYMENT

The prices set forth herein do not include any sales, use, excise, or similar taxes which may apply to the sale of microfiche or hard copy to the Customer. The cost of such taxes, if any, shall be borne by the Customer.

Payment shall be made net thirty (30) days from date of invoice. Payment shall be without expense to CMIC.

3. REPRODUCTION

Materials supplied hereunder may only be reproduced for not-for-profit educational institutions and organizations; provided however, that express permission to reproduce a copyrighted document provided hereunder must be obtained in writing from the copyright holder noted on the title page of such copyrighted document.

4. CONTINGENCIES

CMIC shall not be liable to Customer or any other person for any failure or delay in the performance of any obligation if such failure of delay (a) is due to events beyond the control of CMIC including, but not limited to, fire, storm, flood, earthquake, explosion, accident, acts of the public enemy, strikes, lockouts, labor disputes, labor shortage, work stoppages, transportation embargoes or delays, failure or shortage of materials, supplies or machinery, acts of God, or acts or regulations or priorities of the federal, state, or local governments; (b) is due to failures of performance of subcontractors beyond CMIC's control and without negligence on the part of CMIC; or (c) is due to erroneous or incomplete information furnished by Customer.

5. LIABILITY

CMIC's liability, if any, arising hereunder shall not exceed restitution of charges.

In no event shall CMIC be liable for special, consequential, or liquidated damages arising from the provision of services hereunder.

6. WARRANTY

CMIC MAKES NO WARRANTY, EXPRESS OR IMPLIED, AS TO ANY MATTER WHATSOEVER, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

7. QUALITY

CMIC will replace products returned because of reproduction defects or incompleteness. The quality of the input document is not the responsibility of CMIC. Best available copy will be supplied.

8. CHANGES

No waiver, alteration, or modification of any of the provisions hereof shall be binding unless in writing and signed by an officer of CMIC.

9. DEFAULT AND WAIVER

a. If Customer fails with respect to this or any other agreement with CMIC to pay any invoice when due or to accept any shipment as ordered, CMIC may without prejudice to other remedies defer any further shipments until the default is corrected, or cancel this Purchase Order.

b. No course of conduct nor any delay of CMIC in exercising any right hereunder shall waive any rights of CMIC or modify this Agreement.

10. GOVERNING LAW

This Agreement shall be construed to be between merchants. Any question concerning its validity, construction, or performance shall be governed by the laws of the State of New York.

◀INTERCHANGE▶
ATTACHMENT 75-4

ERIC CLEARINGHOUSES *(and Other Network Components)*

The ERIC Clearinghouses have responsibility within the network for acquiring the significant educational literature within their particular areas, selecting the highest quality and most relevant material, processing (i.e., cataloging, indexing, abstracting) the selected items for input to the data base, and also for providing information analysis products and various user services based on the data base.

The exact number of Clearinghouses has fluctuated over time in response to the shifting needs of the educational community. There are currently 16 Clearinghouses. These are listed below, together with full addresses, telephone numbers, and brief scope notes describing the areas they cover.

ERIC Clearinghouse on *Career Education*
Ohio State University
Center for Vocational Education
1960 Kenny Road
Columbus, Ohio 43210
Telephone: (614) 486-3655

Career education, formal and informal at all levels, encompassing attitudes, self-knowledge, decision-making skills, general and occupational knowledge, and specific vocational and occupational skills; adult and continuing education, formal and informal, relating to occupational, family, leisure, citizen, organizational, and retirement roles; vocational and technical education, including new sub-professional fields, industrial arts, and vocational rehabilitation for the handicapped.

ERIC Clearinghouse on *Counseling and Personnel Services*
University of Michigan
School of Education Building, Room 2108
Ann Arbor, Michigan 48104
Telephone: (313) 764-9492

Preparation, practice, and supervision of counselors at all educational levels and in all settings; theoretical development of counseling and guidance; use and results of personnel procedures such as testing, interviewing, disseminating, and analyzing such information; group work and case work; nature of pupil, student, and adult characteristics; personnel workers and their relation to career planning, family consultations, and student orientation activities.

ERIC Clearinghouse on *Urban Education*
Columbia University, Teachers College
Box 40
525 W. 120th Street
New York, New York 10027
Telephone: (212) 678-3780

The relationship between urban life and schooling; the effect of urban experiences and environments from birth onward; the academic, intellectual, and social performance of urban children and youth from grade three through college entrance (including the effect of self concept, motivation, and other affective influences); education of urban, Puerto Rican and Asian American populations, and rural and urban black populations; programs and practices which provide learning experiences designed to meet the special needs of diverse populations served by urban schools and which build upon their unique as well as their common characteristics; structural changes in the classroom, school, school system, and community and innovative instructional practices which directly affect urban children and youth; programs, practices, and materials related to economic and ethnic discrimination, segregation, desegregation, and integration in education; issues, programs, practices, and materials related to redressing the curriculum imbalance in the treatment of ethnic minority groups.

ERIC Clearinghouse on *Early Childhood Education*
College of Education
University of Illinois
805 W. Pennsylvania Avenue
Urbana, Illinois 61801
Telephone: (217) 333-1386

Prenatal factors, parental behavior; the physical, psychological, social, educational, and cultural development of children from birth through the primary grades; educational theory, research, and practice related to the development of young children.

ERIC Clearinghouse on *Educational Management*
University of Oregon
Eugene, Oregon 97403
Telephone: (503) 686-5043

Leadership, management, and structure of public and private educational organizations; practice and theory of administration; preservice and inservice preparation of administrators, tasks, and processes of administration; methods and varieties of organization, organizational change, and social context of the organization.

Sites, buildings, and equipment for education; planning, financing, constructing, renovating, equipping, maintaining, operating, insuring, utilizing, and evaluating educational facilities.

ERIC Clearinghouse on *Handicapped and Gifted Children*
Council for Exceptional Children
1920 Association Drive
Reston, Va. 22091
Telephone: (703) 620-3660

Aurally handicapped, visually handicapped, mentally handicapped, physically handicapped, emotionally disturbed, speech handicapped, learning disabilities, and the gifted; behavioral, psychomotor, and communication disorders, administration of special education services; preparation and continuing education of professional and paraprofessional personnel, preschool learning and development of the exceptional; general studies on creativity.

ERIC Clearinghouse on *Higher Education*
George Washington University
One Dupont Circle, Suite 630
Washington, D. C. 20036
Telephone: (202) 296-2597

Various subjects relating to college and university students, college and university conditions and problems, college and university programs. Curricular and instructional problems and programs, faculty, institutional research, Federal programs, professional education (medical, law, etc.), graduate education, university extension programs, teaching-learning, planning, governance, finance, evaluation, interinstitutional arrangements, and management of higher educational institutions.

ERIC Clearinghouse on *Information Resources*
Syracuse University
School of Education
Area of Instructional Technology
Syracuse, New York 13210
Telephone: (315) 423-3640

Management, operation, and use of libraries; the technology to improve their operation and the education, training, and professional activities of librarians and information specialists. Educational techniques involved in microteaching, systems analysis, and programmed instruction employing audiovisual teaching aids and technology, such as television, radio, computers, and films. Technology in society adaptable to education, including cable television, communication satellites, microforms, and public television.

ERIC Clearinghouse for *Junior Colleges*
University of California
Powell Library, Room 96
405 Hilgard Avenue
Los Angeles, California 90024
Telephone: (213) 825-3931

Development, administration, and evaluation of public and private community junior colleges. Junior college students, staff, curricula, programs, libraries, and community services.

ERIC Clearinghouse on *Languages and Linguistics*
Center for Applied Linguistics
1611 North Kent St.
Arlington, Virginia 22209
Telephone: (703) 528-4312

Languages and linguistics. Instructional methodology, psychology of language learning, cultural and intercultural content, application of linguistics, curricular problems and developments, teacher training and qualifications, language sciences, psycho-linguistics, theoretical and applied linguistics, language pedagogy, bilingualism, and commonly and uncommonly taught languages including English for speakers of other languages.

ERIC Clearinghouse for *Reading and Communication Skills*
National Council of Teachers of English
1111 Kenyon Road
Urbana, Illinois 61801
Telephone: (217) 328-3870

Reading, English, and communication skills, preschool through college. Educational research and development in reading, writing, speaking, and listening. Identification, diagnosis, and remediation of reading problems. Speech communication—forensics, mass communication, interpersonal and small group interaction, interpretation, rhetorical and communication theory, instruction development, speech sciences, and theater. Preparation of instructional staff and related personnel in these areas.

All aspects of reading behavior with emphasis on physiology, psychology, sociology, and teaching. Instructional materials, curricula, tests and measurement, preparation of reading teachers and specialists, and methodology at all levels. Role of libraries and other agencies in fostering and guiding reading. Diagnostic and remedial services in school and clinical settings.

ERIC Clearinghouse on *Rural Education and Small Schools*
New Mexico State University
Box 3AP
Las Cruces, New Mexico 88003
Telephone: (505) 646-2623

Education of Indian Americans, Mexican Americans, Spanish Americans, and migratory farm workers and their children; outdoor education; economic, cultural, social, or other factors related to educational programs in rural areas and small schools; disadvantaged of rural and small school populations.

ERIC Clearinghouse on *Science, Mathematics, and Environmental Education*
The Ohio State University
1800 Cannon Drive
400 Lincoln Tower
Columbus, Ohio 43210
Telephone: (614) 422-6717

All levels of science, mathematics, and environmental education; development of curriculum and instructional materials; media applications; impact of interest, intelligence, values, and concept development upon learning; preservice and inservice teacher education and supervision.

ERIC Clearinghouse for *Social Studies/Social Science Education*
855 Broadway
Boulder, Colorado 80302
Telephone: (303) 492-8434

All levels of social studies and social science; all activities relating to teachers; content of disciplines; applications of learning theory, curriculum theory, child development theory, and instructional theory; research and development programs; special needs of student groups; education as a social science; social studies/social science and the community.

ERIC Clearinghouse on *Teacher Education*
American Association of Colleges for Teacher Education
One Dupont Circle, Suite 616
Washington, D. C. 20036
Telephone: (202) 293-7280

School personnel at all levels; all issues from selection through preservice and inservice preparation and training to retirement; curricula; educational theory and philosophy; general education not specifically covered by Educational Management Clearinghouse; Title XI NDEA Institutes not covered by subject specialty in other ERIC Clearinghouses; all aspects of physical education.

ERIC Clearinghouse on *Tests, Measurement, and Evaluation*
Educational Testing Service
Princeton, New Jersey 08540
Telephone: (609) 921-9000 ext. 2182

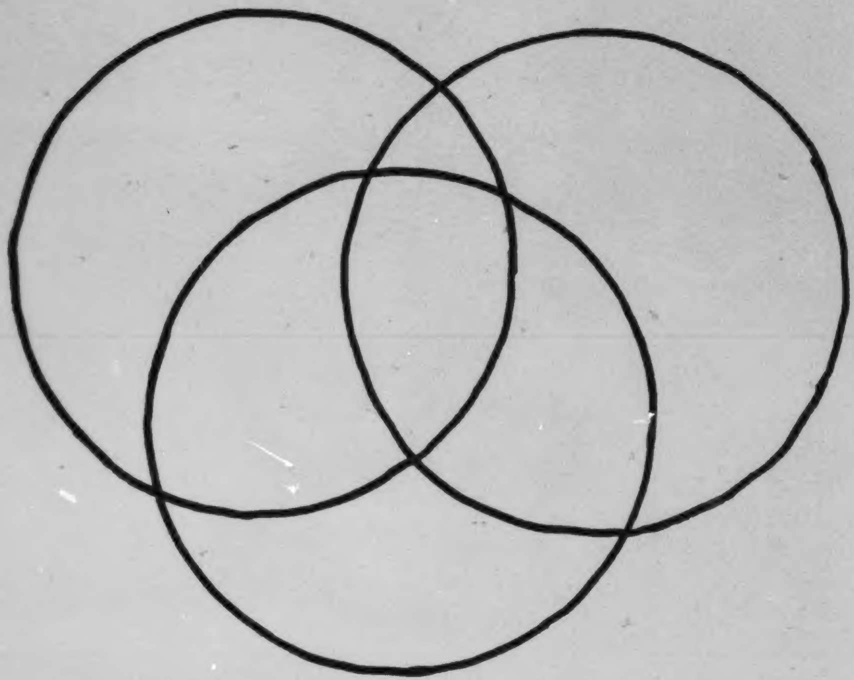
Tests and other measurement devices; evaluation procedures and techniques; application of tests, measurement, or evaluation in educational projects or programs.

Educational Resources Information Center
(Central ERIC)
National Institute of Education
Washington, D. C. 20208
Telephone: (202) 254-5040

ERIC Processing & Reference Facility
4833 Rugby Avenue, Suite 303
Bethesda, Maryland 20014
Telephone: (301) 656-9723

ERIC Document Reproduction Service
P.O. Box 190
Arlington, Virginia 22210
Telephone (703) 841-1212

Macmillan Information
866 Third Avenue
New York, New York 10022
Telephone: (212) 935-3274



Venn Diagram

THE FACULTY MEMBER AS A CHANGE AGENT OR: WHO WILL BELL THE CAT

Jerry Patterson

Regional Technical Instructor
University of Alabama-Birmingham
University Station
Birmingham, Alabama 35226

One of Aesop's most frequently quoted fables concerns a colony of mice who lived each day in fear of a rather large and cruel cat. One by one, the cat depleted the populations of the colony by quietly stalking the mice as they went about their business. Finally, in a desperate attempt to solve their problem, the mice called a meeting to discuss various solutions. After talking at length about the problem and making little progress toward any feasible solution, a young mouse leaped to his feet and exclaimed that he had the answer. With the undivided attention of every mouse in the room, he announced, "Because the cat is so sneaky and so quiet, we need only to catch him when he is sleeping and tie a bell around his neck and this way, we can hear him whenever he attempts to catch us!" And the young mouse sat down, to the thunderous applause of his friends.

Slowly, an older and wiser mouse made his way to the front of the crowd. "We have heard," he said, "a plan which does indeed have merit on the face of the argument. However, I have one question to pose for your consideration." As quiet settled over the crowd, the old mouse asked, "Who will tie the bell on the cat's neck?"

The dilemma faced by the mice might be summarized under the general heading of "good news and bad news." The good news was, of course, the possible solution to a problem. The bad news was identifying specific steps toward implementing a feasible solution. As

Shakespeare said, "Therein lies the rub." There is a parallel between Aesop's fable and allied health and nursing education today. Almost all of us agree on the need to somehow "improve" the overall picture of our educational and training efforts and to somehow be change agents. But there is disagreement on the approaches to take and the methods to employ toward accomplishing these broad goals. There is, in fact, a dismal lack of consensus on direction toward change. We are aware of what we might want to do, but simultaneously we seem collectively unprepared to deal with the "how" of it all.

We have heard, during this conference, the facts and statistics: that we spend 34 billion dollars annually for health care; that health care ranks second in total expenditures, exceeded only by Social Security.

We have heard that there are three dimensions of our leadership role in allied health and nursing education: that we are, first, part of a total system; second, that we are educators; and that the third part of our role is to be change agent.

Our profession is truly being swept by a wind of change. The rapidity of this change can be witnessed in every aspect, from that of course content (which in some cases is as old as some of us here), to the most advanced technological developments. This kind of change demands changes in us; it forces us to acquire a facility for change if we are to continue with even minimal degrees of success. In order for us to develop this facility for change, it seems clear that we must be willing to engage in change efforts directed toward ourselves, our respective disciplines, and allied health and nursing in general.

Speaking rather candidly, this pressure for change is forcing us to redefine some of our goals and to change some of our methods of achieving our goals.

Many times we recognize the need for changes, but we often introduce changes within our respective programs without ever making the necessary preparation for their introduction. In such instances, we fall victim to the deadly assumption that by the adoption of change, our task is completed. We usually find--and the research bears this out--that unplanned changes, regardless of their worth, have great potential for failure and produce resistance to any successful adoption by other persons. The need is that we apply to our change efforts the same scientific procedures that a psychiatrist might use when he is attempting to make behavioral changes in patients.

Science has rightly been called the most powerful moving force in the modern world. As a method of inquiry, science is our most reliable source of knowledge about our environment and about ourselves. Science, being experimental in temper and scornful of both sacred cows and traditional authority alike, has moved rather triumphantly along during the past four and a half centuries from conquest to conquest. Beginning its revolutionary career in the sphere of astronomy, science has left its mark on every field of thought. It has penetrated to some degree, although by no means equally, all educational arenas and has overthrown countless ideas and customs hallowed by time. Pointedly then, the modern application of scientific acumen can lead to the effective implementation of managed change in all spheres of education, even in allied health and nursing.

I would like for us to direct our attention for a moment to the science of managed change and to consider how this technique can be applied to allied health and nursing.

What do we mean by "change"? Funk and Wagnalls Standard Dictionary of the English Language defines changes as "causing to vary or to become different in appearance, form or nature." This implies making something other than the way it is or was through transforming or transporting, converting or altering. Change, then, distinctly notes the making of a thing into something other than what it has been, to some degree.

Any managed or planned change must always originate in a decision to make a deliberate effort to improve, and often to obtain the help of an outside agent in making this improvement. First, managed or planned change requires the definite identification and isolation of the problem. We then proceed through a series of activities directed toward finding a solution to the problem, and we end with a diffusion of the solution on the target population. In other words, when a deliberate attempt is made to change a situation, the course of this change can be and should be charted, analyzed, evaluated and eventually stabilized. Perhaps an example will clarify the point. In Alabama, as in many other states, we are faced with the problem of maldistribution of health care personnel. Recognizing that there are many rural area hospitals which cannot afford the services of allied health specialists, the idea was presented that it might be possible to change the situation by training one individual in a number of allied health competencies. We developed the "Multi-Competence Clinical Technician Program." The program resulted from a deliberate effort to improve a situation. The identification of the problem was the maldistribution of health care personnel; specifically, the inability of small, rural hospitals and health care facilities to afford the services of a variety of specialists. Through the development of a curriculum, the enrollment of students and conducting a course, a class was graduated with certain skills in the areas of radiological technology, medical technology and medical office assisting. The graduates *were* employed. In other words, there was a *deliberate* attempt to change the situation; the solution would never have been possible from only a philosophical discussion of the need. The solution was effected through a charted, analyzed, evaluated and now stabilized change process.

This brings us to a discussion of change agents and client systems. In any managed change process, some source is usually involved which is referred to as a "change agent." Generally, the "change agent" is an outside source, and the population with which it works is called a "client system." The change agent may be a practitioner who is able to open up channels of communication that were previously closed between two persons, or a highly organized profession. A change agent may be an individual, or a group of individuals; and the client system may be an individual, a small group, an institution, an organization or an entire community. A change agent can be a teacher, an administrator, a clinician, a community health organization or a university, depending upon the type of client system in which the change is being induced. Given this, it seems relatively simple for us to imagine ourselves as individual change agents within our respective institutions and health care facilities. It also seems relatively easy to identify ourselves as part of a larger whole; that is, as members of professional organizations, as members of a group in society concerned with the need for positive changes.

It is generally recognized that managed change proceeds through several distinct stages from beginning to end. We have already heard these discussed. We have heard that Kurt Lewin suggested a three-phase change cycle consisting of (1) unfreezing the present situation, (2) moving to a new condition, and (3) refreezing or stabilizing the change situation.

Lippitt enlarged Lewin's three-step cycle to a five-step process which includes (1) the development of a need for change, (2) the establishment of a change relationship, (3) working toward change, (4) generalization and stabilization of change, and (5) achieving a terminal relationship.

Whether the planned change process is recognized as having three, four or five stages, the basic ingredients of the process are the same. These are important for those of us who are interested in being change agents. The basic ingredients are: (1) the recognition of the need for change, (2) the application of an appropriate treatment to the situation to cause the change, and (3) stabilizing the results of change, at least long enough for a try-out to determine the validity and worth of what we have done.

Recognition of the need for change is something that is easy enough for all of us to do. We do it every day. We are doing it now. And that is the essential first step of any planned change in any client system. We can define the present state of affairs through some type of survey or self-study conducted formally or informally.

But in this self-study or survey, the thing we must do is to identify and isolate the problems in the client system. We must deal with two essential questions: (1) what are the sources of difficulty, and (2) what are the forces preventing the change from occurring? These are the two types of forces present in any client system, those referred to as "driving or changing forces" and those which are identified as "restraining forces." "Driving or changing forces" are those which tend to initiate a change and keep it going, while "restraining forces" prevent or retard movement toward change. Both must be identified. As an example, our school--as many others--has engaged in many "self-studies." (These can be very formal, such as those required by accrediting agencies, and they can be quite time consuming. On the other hand, they can be informal and essentially geared to responses to the two questions which I have indicated earlier.) At SCAHR, we identified some restraining forces. We admitted that these restraining forces existed, that they were not going away, and that they had to be carefully considered when initiating or attempting to initiate positive educational changes within our programs. We found some things that might exist within your programs:

1. We found that most of our instructors felt a deep personal responsibility for learning outcomes in their respective programs. Because of this, they were somewhat hesitant to allow instructional technology, or any kind of educational assistance, to come between them and their students. This is certainly not negative, unless it restrains any positive change needed for improvement.

2. We found that training and habit accustomed some of our instructors to certain patterns of teaching and evaluating, and there was a natural hesitancy to changing methods, or the size of classes, for fear of admitting something akin to "personal inadequacy."
3. We found, across the board, that our instructors generally carried (or felt that they did) heavy work loads.

We learned that if we were to effect change, restraining forces had to be cataloged and examined in terms of their magnitude so that appropriate action could be selected to bring about the desired change.

Because attitudes are involved, when there is any attempt toward positive change, there must be effective communication. This is a "hand-in-glove" relationship. Effectiveness of communication often depends on an understanding of the change process. I think that many allied health and nursing programs aimed at "improving" fail because of imprecise understandings of the relationships between communication and change.

Many in-service and continuing education programs fail because they are perceived by instructors and administrators as unrelated to the "real world," where the buck stops. Therefore, achieving positive change in our programs depends not only upon an understanding of the change process, but also upon the forms of communication related to each of the five steps in the change process: awareness, interest, evaluation, trial and adoption. For any change to become implemented, individuals in the client system must first be made aware and then become interested enough to seek additional information. Then through discussion, exploration, search, visitation and other similar contacts, we evaluate the innovation in terms of its applicability to our respective situation. There should then be a trial period during which we test the innovation on a limited kind of pilot basis. If this trial produces positive results, then it should result in an adoption of the innovation by the interested persons.

Let me describe another situation which might clarify this point. At our school, a problem was identified in the attrition rate of high-risk students who entered the programs. Students were enrolled who were academically deficient, and later had difficulty handling the course requirements.

1. We were aware of a diagnostic and prescriptive remedial education system.
2. We were interested in the possible application of this diagnostic and prescriptive remedial education system within our school.
3. Through discussions, exploration, search of the literature, and visitation to other programs, we evaluated the individualized diagnostic and prescriptive remedial education system.
4. Through administrative commitment and support, sufficient funds were allocated to be implemented on a trial basis.
5. As a result of the trial basis and the data that were gathered, the results were positive enough that we adopted the innovation, and it is now a viable part of our educational support services for the 1,200 students at the School of Community and Allied Health Resources.

Had we attempted to implement the system by moving from awareness to adoption, it is doubtful whether we would have succeeded.

Those of us in the health field as instructors or administrators are often expected to adopt new practices as a result of some group in-service sessions, or a newsletter item, or a brief visit to what we call "exemplary programs." One major reason for the dissatisfaction with such change attempts may be that these sessions usually take us only through the first two steps in the change model: awareness and interest. They do not expose us to the process of effecting change. Communication is usually one-way, speaker to audience, with little provision for audience feedback or for extensive two-way communication or discussion. Additionally, such in-service sessions are often one-shot affairs, with little or no follow-up. We assemble, listen to advice from visiting experts and return home with little or no assistance to put that advice into actual practice. Sometimes, the impersonal speech is replaced by what could be an even more impersonal dissemination of materials which we call handouts or "throwaways."

The point is, we are made aware of new practices and a number of us may become interested in the implications for our own situation. But then, nothing more is done to help us through the last three steps in the change process: trial, evaluation and adoption. All five steps are essential to put new ideas into use. To be aware and to be interested is not enough.

A further distinction between change dissemination or diffusion, and the levels of communication associated with each might be useful in proposing a possible solution to this dilemma we all face.

In relation to change, dissemination may be defined as "providing information through largely impersonal channels about new practices." Think about that. Diffusion, on the other hand, is "attention given by knowledgeable field workers to instructors and administrators wishing to adopt new practices, with communication on any very personal level." As noted, dissemination may be more closely associated with the first two steps: awareness and interest. But the diffusion of change is directly associated with the last three steps in the change process.

It is my opinion that those of us in allied health and nursing education can use what is known about communication and change to design more effective ways of improving our instructional programs, and in helping others to do so. In other words, we know enough to proceed in a positive way. We know enough to begin taking positive actions. It is not necessary to wait until all the data and all the research on all the writings on change have been researched to begin action. We know enough to begin.

In beginning, I think we must recognize that communication and change cannot be separated. A change model which incorporates theory and research from the two fields of communication and change--one which recognizes the relationship between the fields--is going to have a better possibility of promoting professional growth among allied health and nursing personnel and promoting improved instructional and administrative practices in our programs than one which takes a narrow and separate view of communication and change.

CONCLUSION

That there is a need for change is obvious. We are faced again with one of those "damnable dichotomies." Change is a certainty; it has always been with us and without it, we would certainly be a dead people on a dead planet. At the same time, it is a part of our nature to resist change as surely as we resist death and taxes.

Simultaneously, the pace of change is quickening, and nowhere is this any more evident than in allied health and nursing education. It is evident that our respective programs can play powerful roles in the enactment of positive change. However, we must be willing to change ourselves. We must be willing, as Dr. Monahan has said earlier, to "look through the telescope." I think that of all the constraints toward positive change in allied health and nursing education, the one constraint I see as greater than all the others is what I call a blind dedication to disciplines. Dedication to our disciplines is an honorable thing, but only when our eyes are open. Blind dedication resulting in rigidity and turf guarding is the "Achille's heel" of allied health and nursing education. We must view ourselves as a collective body. Nothing is static. Change must be a part of our process, and I think the greatest reward for those who choose to be change agents comes eventually from being able to look back at those who said "it could not be done" and saying "I did it."

Who, then, will tie the bell on the cat's neck?

SELECTED BIBLIOGRAPHY

Bennis, Warren G., Kenneth D. Benne and Robert Chin: "The Planning of Change" New York, Holt, Rinehart and Winston, 1962.

Gordon, Edmund W.: "Decentralization and Education Reform," IRCD Bulletin, Columbia University, Vol. IV, No. 5 and Vol. V, No. 1, November, 1968-January, 1969.

Jenkins, H. David: "Social Engineering in Educational Change, An Outline of Method," Progressive Education, Vol. 26, No. 7, May, 1949.

Lippitt, Ronald, et al.: "The Dynamics of Planned Change" New York, Harcourt, Brace and World, Inc., 1958

Mann, John: "Changing Human Behavior" New York, Charles Scribner's Sons, 1965.

"Performance-Based Certification in 16 States," New Human Services Newsletter, Vol. 1, No. 2, Winter, 1970.

Riessman, Frank: "Teachers of the Poor: A Five-Point Plan," Journal of Teacher Education, Vol. XVIII, No. 3, Fall, 1967.

Rippa, S. Alexander (ed.): "Educational Ideas in America" New York, David McKay Company, Inc., 1969.

Russell, James E.: "Change and Challenge in American Education" Boston, Houghton Mifflin Company, 1965.

Shoben, Edward Joseph, Jr.: "Education in Megalopolis," Educational Forum, Vol. 31, No. 4, May, 1967.

Star, Jack: "We'll Educate Your Kids Or Your Money Back," Look, June 15, 1971.

Taylor, Bob L.: "How Effective Is a Model For Introducing Planned Change?", Social Education, Vol. 35, No. 5, May, 1971.

Trump, J. Lloyd: "R_x Ingredients of Change," Bulletin of the National Association of Secondary School Principals, XLVII, May, 1963.

DEVELOPING AND IMPLEMENTING CURRICULUM INNOVATIONS

Mary Jane Fogal

Project Director
New Mexico SNAP Project: System for a Nursing Articulation Program
University of Albuquerque
St. Joseph Place, NW
Albuquerque, New Mexico 87140

I am very happy to be here with you during this Leadership Conference for Instructors and Administrators in Allied Health and Nursing, and to specifically share with you what we are doing in New Mexico regarding developing and implementing curriculum innovation. I stress the "ing" portions of these words--developing and implementing. These words are not past tense; we are in the process of developing and implementing statewide curriculum innovation, and it is this process that I would like to share with you.

INTRODUCTION

First, I would like to tell you just a little bit about our state of New Mexico and a brief overview of the nursing education programs.

New Mexico is a very large, rural state; the population is approximately 1,125,000 in a land area of approximately 121,400 square miles. New Mexico is sparsely populated in terms of land area and has an uneven distribution of population. Almost a third of the state's population lives in Albuquerque (Bernalillo County). Six other counties in the state have approximately one-third more of the population.

New Mexico is a tri-cultural state with Anglo-American, Spanish-American and Indian populations. It is unique in that it has a larger percentage of Indians than any other state, and the Spanish-

American population percentage is more than twice as large as that of any other state. New Mexicans do not occupy a very favorable position economically. Twenty of the 32 counties in the state have substantial and/or persistent unemployment.

Size, distribution, and composition of a population affect political representation and influence economic and industrial activity, education, welfare, and many other spheres of activity. No doubt, these factors were responsible for the institutions of higher learning developing independently, the concentration being in the most populous areas. Therefore, the state colleges and universities operate independently of each other. New Mexico again is unique in that there is no unified state system of education. In 1973, the State Commission on Post-Secondary Education was created by the New Mexico Legislature. The statuatory charge of the Commission is to carry out a continuing program of statewide planning for post-secondary education.

Presently in New Mexico, we have 15 schools of nursing--six practical nursing programs, five practical/associate degree nursing programs, three associate degree nursing programs, and one baccalaureate nursing program. A second baccalaureate program in nursing is being developed. The one and only diploma program that we had in New Mexico was phased into an associate degree nursing program in 1968. With few exceptions, we do not have any long-standing, traditional programs in the state. Two practical nursing programs were started in the 1950's, but they have "young" faculty. Other practical nursing programs were started in the 1960's. All of the associate degree programs were started in the late 1960's and in the 1970's. The baccalaureate program was started in 1955; recently, they have undergone extensive curriculum change which I will be happy to share with you later.

STAGES OF INNOVATION DEVELOPMENT

In July, 1975, Dr. Linda Keeling, Assistant Professor, College of Education, Texas Women's University, conducted a workshop in New Mexico on curriculum development. During the workshop, she shared with us various stages of innovation development. I would like to share these stages with you and apply them to what we have been doing in New Mexico.

A Felt Problem

The first stage of innovation development is a felt problem, discussion between faculty and other nursing personnel. The career mobility movement in New Mexico started in 1970. In October of that year, the first meeting of the Career Ladder Concept Committee was held. This Committee was formed and operated under the auspices of Health Occupation Educators Section, New Mexico Vocational Association, and had the support of the New Mexico Nurses' Association. For over one year, our discussions centered around such needs as faculties of all types of nursing education programs working together; challenge examinations; increased accessibility of programs which allow registered nurses to obtain the baccalaureate degree in nursing; nursing education faculties working together more closely with nursing service personnel; a better understanding of the philosophies, objectives, and content of the different programs; and a clearer differentiation of the performance expectations of graduates of the various types of nursing programs. We felt we had a problem.

Problem Clarified

The second stage of innovation development is to clarify the problem. The problem which we identified was, "How can we facilitate career mobility for graduates of our schools of nursing without them having difficulty and repetition of learning experiences?" Essentially, there were two aspects of our problem: 1) for the licensed practical nurses and registered nurses, how could we facilitate their vertical mobility; and 2) how could we change our existing programs or set up new programs to facilitate upward mobility in the future?

Development of Proposal

The third stage of innovation development is developing a proposal for pilot study. This is essentially the planning stage. In the fall of 1971, the Career Ladder Concept Committee decided to write a proposal to develop a plan to permit vertical mobility in nursing. This proposal would enable one person to work full-time in the development of this plan. A career ladder project entitled "Studying and Establishing Generalized Criteria for All Levels of Nursing Education to Facilitate the Career Ladder Concept for Nurses in New Mexico" was written and submitted to the New Mexico Department of Vocational Education in February, 1972.

Pilot Study

The fourth stage of innovation development is to implement the proposal. We were fortunate in that in October, 1972, the Department of Vocational Education funded our career ladder project for nine months--November, 1972, to July, 1973. I was the Project Director, taking a leave of absence as director of a school of practical nursing located in the northern part of the state. The objective of the project was to develop a plan whereby vertical mobility in nursing would be feasible--a plan whereby graduates of each level of nursing education programs could move easily from one level of education to another without difficulty and repetition of learning experiences. The research features of the project were to study the philosophies, objectives and content of each of the nursing programs and to outline the responsibilities of the graduates of each of the types of nursing programs.

During those nine months, I visited the schools of nursing in the state, made out-of-state visits, wrote letters, read as much as possible to gain further understanding of what other programs and states were doing to facilitate career mobility for nurses. We strongly felt then, as we do now, that career mobility is for those nurses who desire to move upward. We realize that a large number of nurses do not desire to move to the next level of education, but for those who do, we desire to make this step easier.

In May, 1973, the first Career Mobility Workshop was held. This was the first time that nursing educators from all levels of educational programs had the opportunity to get together and have dialogue. Mrs. Lucile Wood, formerly Associate Director of Nursing, UCLA Allied Health Professions Project, was the workshop consultant. During the workshop, we developed broad consensus statements describing the minimum performance expectations of graduates of practical, associate degree and baccalaureate degree nursing programs, and the common entrance requirements for each program.

During the fall of 1973 and throughout 1974, activities continued on a regional basis. Changes were made in some of the schools' curricula which would facilitate career mobility; new programs that were started in the state developed with multiple entry and exit. A second Career Mobility Workshop was held in April, 1974. At this workshop, time was spent on further development of the minimum expectations of new graduates and development of objectives and modules.

Although much groundwork had been laid and much work accomplished, we realized that much work remained to be done to develop a functional statewide plan to facilitate career mobility for nurses in New Mexico.

SETTING THE STAGE FOR THE SNAP PROJECT

Our activities from 1970 through 1974 were really setting the stage for our current SNAP Project: System for a Nursing Articulation Program. Dr. Carrie Lenburg, in her new book, Open Learning and Career Mobility in Nursing, states: "Educational philosophies and practices that foster mobility do not simply change automatically; change must be deliberately planned, based on philosophy, in tune with the times. Furthermore, the changes made in educational programs and methods must be directed towards the fulfillment of the profession's social responsibility and not merely for the benefit of the profession per se."

Groundwork had been laid in the four years. Changes were being made. Changes were being deliberately planned, and definitely were in tune with the times. Career mobility, flexibility in educational programs, openness in learning systems--this is the age in which we live.

Before further discussion of our SNAP Project, I would like to share with you just a few facts regarding nursing education in New Mexico which are important concerning our planning and implementing statewide curriculum innovation. The first of these is the stability of the faculty in the schools of nursing. Except for a few faculty changes, it has essentially been the same group of educators involved in our career mobility movement. The directors of our nursing programs, faculty members and certain nursing service personnel have been involved from the beginning of our discussions and have been deeply involved in the change process.

Secondly, not only has there been stability, but there has been continuity of influence. Marian Thomas, State Supervisor of Health Occupations, State Department of Vocational Education, has been very instrumental in the state's progress in career mobility. Sister Alma Rihm, the Director of the Division of Nursing and Allied Health, University of Albuquerque, is an innovator, a person who can "grab an idea and run with it." She is committed to career mobility and wrote our SNAP Project Proposal to the W. K. Kellogg Foundation. I personally have been involved with the career mobility movement since the first meeting held in October, 1970. I will come back to this factor in a moment.

Third, the educators who have most recently come to New Mexico have been involved in career mobility in other areas of the country; therefore, they have been "forward thinkers," and are certainly an important aspect of what is happening in New Mexico. Two of these individuals, Esther Sherrod and Betty Schmidt, have contributed to Carrie Lenburg's book, Open Learning and Career Mobility in Nursing.

Therefore, we have the "best of the imports" combined with the existing climate within New Mexico, and career mobility and change continues.

Fourth, it is important to recognize that the New Mexico Board of Nursing (combined RN/LPN Board) has been very supportive of curriculum innovation and career mobility.

Floyd Shoemaker, Bureau of Higher Education, Michigan Department of Education, has written an article entitled, "Developing Change Agents in Vocational Education." In his article, Shoemaker describes the diffusion process. He states that a basic assumption is "change in human behavior comes about as a result of the communication of certain stimuli to the individual." He further states that there are four essential elements in the diffusion of an idea: 1) the innovation, 2) which is communicated from one individual to another, 3) in a social system, and 4) over time. He further states, "the process of development and planned change rests upon the effective communication of the new ideas to mass audiences." The progress of career mobility and curriculum change in New Mexico meets these four essential elements in the diffusion of an idea--the innovation, being communicated from one individual to another, in a social system, over a period of time.

I stated above that I have been involved in the career mobility movement since the beginning. This, I feel, has been and is an important factor in the development and implementation of curriculum change and development of a statewide plan to facilitate career mobility for nurses. In essence, I consider myself a "change agent." Shoemaker describes a change agent as a professional who influences innovation decisions in a direction deemed desirable by a change agency. Bennis and others refer to the change agent as "the helper, the person or group who is attempting to effect change." Shoemaker states that the change agent's success in linking the change agency with the client system lies at the heart of the diffusion process. In our situation, I feel that my "direct clients" are the nursing educators and the nursing service personnel. Indirectly, our clients are the students and graduates of our schools of nursing--and, indeed, the citizens of our state.

Shoemaker discusses the sequence of change agent's roles. The first role is to "develop a perceived need for the proposed change." In New Mexico, we were involved with the development of this perceived need since 1970. I alone did not identify this perceived need; it was a group process. But through our first career ladder project and the various workshops we have held, I have been a facilitator and/or a catalyst in helping nursing educators and service personnel to discover the need to alter their attitudes and behavior--hence, our nursing education programs.

The second change agent's role that Shoemaker describes is to "establish a change relationship." He further states, "once the client perceives the need for change, the change agent must develop a rapport with that client. He may create this relationship by developing a feeling of interpersonal trust, by empathizing with his client, and by interfacing with his client in a variety of situations. Clients must trust and accept the change agent if any long-term change is to be brought about." As change agent relating to our career mobility movement in New Mexico, I definitely feel that

I am accepted and trusted by nursing educators and nursing service personnel throughout the state.

The third change role is "creating an intent to change in the client." Shoemaker explains that after the change agent explores the various avenues of action which the client might take to achieve these goals, he should encourage an intent to change, provide the motive for adoption of a new idea. The most successful change is client-centered rather than imposed change in which the individual has no influence. In this role, the change agent's function is to motivate the client to adopt the innovation. Throughout 1971-1974, a large group of people in New Mexico has been involved. As the proposal was being written for the Kellogg Foundation, the directors of the schools of nursing and the administrators of the institutions in which nursing programs are located wrote letters of agreement for active participation in the SNAP Project. In this way, the clients--the nursing educators and administrators--were indicating their intent to change.

The fourth change agent role is to "translate intent into action." Shoemaker describes this as follows: "A change agent seeks to influence his client's behavior in accordance with his recommendations which are based upon his diagnosis of the client's needs. In essence, the change agent works to promote compliance with the innovations he advocates. This means more than mere agreement or indication of intent. It means attitudinal and behavioral change." Essentially, this is where we are now--involvement in our SNAP Project.

THE SNAP PROJECT

The SNAP Project is in the process of developing and implementing a statewide curriculum innovation. The three-year project was funded by the W. K. Kellogg Foundation beginning in January, 1975. The goal of SNAP is to facilitate career mobility for graduates of nursing education programs at all levels of nursing preparation by developing a cooperative plan among all New Mexico institutions offering nursing programs. In other words, we want to design and implement an articulation system for graduates of nursing programs in New Mexico and develop an integrated educational plan so that each graduate of any nursing program will be able to reach his or her highest level of achievement. By articulation, we mean "structuring of cooperative relationships among nursing education programs in the state which will allow students to progress in an orderly fashion, minimizing repetition of learning experiences."

Some specific objectives of the Project are as follows: 1) to develop and adopt "Minimum Behavioral Expectations of New Graduates from New Mexico Schools of Nursing," 2) to develop and use specific behavioral objectives for each level of nursing program for the purposes of curriculum development, 3) to determine the means for articulation among institutions offering different levels of education, 4) to assist the educational institutions in implementing the articulation system, 5) to develop a plan of progression toward the baccalaureate degree tailored to the needs of registered nurse students, and 6) to develop a graduate program in nursing.

How the Project is being conducted is a very important aspect of our change process. First and most important, the work of the Project is done by task forces. Each of the task forces includes representatives from nursing assistant programs; practical nursing, associate and baccalaureate degree nursing programs; and representatives from nursing service. Student and graduate input is also being solicited. The "grassroots people," so to speak, are involved. To facilitate the work of the task forces and to provide for collaboration on project recommendations, workshops are held. Nursing educators and nursing service personnel from throughout New Mexico attend. The workshop being planned for March 31-April 2, 1976, is entitled "Skills in Programming Professional Change in Nursing,"

The Inter-School Steering Committee consists of one representative from each school of nursing in New Mexico, one representative from the secondary health assistant programs, and the State Supervisor of Health Occupations, State Department of Vocational Education. This Committee is responsible for the policies and direction of the Project. Three meetings were held in 1975; three meetings are projected for 1976. There is excellent discussion and interaction among the members of the Committee.

The Advisory Committee has been established with representatives from health care administration, education, consumers, physicians, students and counselors. Two meetings of the Advisory Committee were held in 1975. Members of the Committee have given excellent advice relating to work of the task forces and/or progress of the Project. They have been very interested in and supportive of the Project and have assisted in interpreting the Project to their constituent groups.

The Academic Council consists of the highest academic official, or his appointed representative, of the institutions offering nursing programs. The first meeting of the Academic Council was held in December. Although there were no final decisions to be made nor final adoption or implementation of the statewide system, the members of the Academic Council met so that Project staff could share with them the activities of the Project during the year. The Academic Council is very supportive of the Project and its activities.

Consultants are being used. Dr. Joan Cobin, Chairman of the Department of Nursing, California State University at Long Beach, was the workshop consultant in 1975. In the fall of 1975, Dr. Joan Zurhellen, Project Director of the Five School Consortium Project, Memphis, Tennessee, served as a consultant for the workshop on the development of a philosophy and conceptual framework for nursing education in New Mexico. Dr. Virginia Barham, Nursing Consultant, Kaiser-Permanente Medical Center, Oakland, California, has served as a continuing consultant for the Project by writing extensive letters, reacting to and making suggestions from written material she has received. Richard Rindone from the University of New Mexico is our outside evaluator and also serves as a consultant. Just recently, Dr. Carrie Lenburg, Coordinator, Regents External Degrees in Nursing, University of the State of New York, spent two days with us.

Our Project is being conducted with a large number of people involved. This definitely is a very important factor in our change process.

What, specifically, are we doing? One of the major emphases has been on the development of minimum behavioral expectations of new graduates from New Mexico schools of nursing. Various task forces have been involved; three drafts of the "Minimum Behavioral Expectations" have been prepared thus far. These drafts have been sent to nursing educators and nursing service personnel throughout the state; comments and suggestions are constantly being solicited. As Project Director, I have made personal contacts with a number of directors of nursing. Task Lists were compiled as part of the "Minimum Behavioral Expectations of New Graduates" and are being tested in various parts of the state.

As discussions regarding curriculum development evolved during 1975, it was necessary that a philosophy and a conceptual framework about nursing education in New Mexico be written. Following our October, 1975, workshop with Dr. Zurhellen, two task forces were formed to continue the work begun. Working drafts of a philosophy and a conceptual framework have been written. A task force will continue further development of these documents.

One Project staff member is employed as Coordinator, Registered Nurse Students, College of Nursing, University of New Mexico, to develop a plan of progression toward the baccalaureate degree that is tailored to the needs of registered nurse students. The free brochure "A Plan for Completion of the B.S.N. Degree by Registered Nurses" describes the plan which has been developed. An aspect of this part of the Project is to make the baccalaureate degree available in other areas of the state. Another major emphasis of the Project is the development of a graduate program in nursing.

Again, I would emphasize that we are in the process of developing and implementing a statewide curriculum innovation.

Returning once again to Shoemaker's "Sequence of Change Agent Roles," the fourth role was translating intent into action--meaning attitudinal and behavioral change. I personally feel that attitudinal and behavioral changes are occurring among nursing educators and nursing service personnel. These attitudinal and behavioral changes are being translated directly into curriculum changes, participation in task forces, and the SNAP Project. Even though the diffusion process has occurred during the last five years of the career mobility movement in New Mexico, I personally want to intensify the diffusion process in 1976 by having more personal contact with nurses around the state.

The fifth and sixth change agent roles, as described by Shoemaker, are (5) to stabilize the change and prevent discontinuances, and (6) to achieve a terminal relationship with the client. The formation of the Inter-School Steering Committee and the Academic Council, I feel, will assist in stabilizing the change. Hopefully, these Committees/Councils will continue at the end of the SNAP Project. Shoemaker states that the end goal of any change agent is the development of a self-renewing attitude in his clients. The change agent actively works to put himself out of business by developing the client's ability to be his own change agent. Hopefully, by the end of 1977, I will have worked myself out of a job! By this, I mean that we will have achieved our goal--development of the cooperative plan which will facilitate career mobility for graduates of nursing education programs at all levels of nursing preparation, and that nursing educators and service personnel will be so committed to career mobility that the changes that are occurring now will be solidified or that as improvements in career mobility can be made, these will be done.

CONCLUSION

Returning once again to Keeling's presentation of stages of innovation development, the last two stages were evaluation and completion and adoption. The pilot study--the first career ladder project funded in 1972--was the basis for our current SNAP Project. Evaluation is an important aspect of the SNAP Project. There are two parts to evaluation--evaluation of the Project and evaluation of the acceptance of career mobility. To assess this acceptability, we are planning to give questionnaires to career mobility students, faculty members, and possibly employers of career mobility graduates. For innovation to be successful, it will be necessary to incorporate changes into curricula in all schools of nursing in the state.

During our discussion, I have shared with you certain stages of innovation development as stated by Linda Keeling and aspects of change as described by Floyd Shoemaker. In New Mexico, we had a felt problem; we identified the problem; we involved a number of people and developed a proposal. A pilot study led to an additional three-year implementation project. We are in the process of evaluation. Completion and adoption of our statewide plan will occur later.

I feel our change is occurring as a result of the diffusion process--a certain few individuals at first committed to the idea, and the idea involving more and more people. The innovation has been communicated from one individual to another within New Mexico over a number of years. This diffusion has been an important part of our developing and implementing curriculum innovation. The faculties in the schools of nursing have been stable and yet open to new ideas. We have had continuity. As a change agent, I have been the facilitator of our curriculum innovation. I am accepted by nurses throughout the state; I have a good rapport with my "clients." Our change is client-centered; our concern is to develop the best curricula that we can for our students and graduates of our schools of nursing so that, indeed, the citizens of our state can receive the best nursing care possible.

This is where we have been, where we are now, in planning and implementing a statewide curriculum change.

EFFORTS TO IMPROVE HEALTH MANPOWER DISTRIBUTION IN THE UNITED STATES

Anne R. Warner

Project Director
Manpower Distribution Project
National Health Council
1740 Broadway
New York, New York 10019

The geographic maldistribution of health care services and manpower is recognized as one of the most crucial problems in the health field today in the United States. It is a complex problem involving many health disciplines--nursing, allied health, pharmacy, dentistry and other health professions--as well as the much-publicized field of medicine. As educators and administrators of health science programs, you are all probably quite aware of the specific areas in need of health manpower in your geographic region. And you would probably be interested in any new or innovative methods of encouraging health science students to practice where they are needed most. That is what I would like to share with you today.....some of the methods we at the National Health Council have identified among those being implemented around the country as most successful in influencing graduating students to practice in shortage areas.

First, just a word about how the National Health Council got into this subject. Since most experiences have shown that it is very difficult to move health professionals to new locations once they have begun practice, the NHC determined to concentrate its efforts on students who are now in training for the health professions. The goal of the Manpower Distribution Project, begun in June of 1972, is to find the most effective ways of motivating health science students to practice, after completion of training, in areas of greatest need--mainly the inner city and rural areas of the country. The project is implemented under a contract with the Bureau of Health Manpower, Health Resources Administration, DHEW.

A national clearinghouse of information on health manpower distribution was established for the collection and dissemination of data on health manpower, areas of need, and incentives now being used to attract health personnel to shortage areas in the United States. Surveys, reports and studies that have been done by universities, government agencies, professional societies and other groups are continuously collected and analyzed. A wealth of information has been compiled, and our files are constantly used by persons in the health and education fields who are working to solve the maldistribution problems in the country. An Annotated Bibliography on Health Manpower Distribution was published in 1973, and an updated edition is now in preparation. (Over 75 additions--major surveys, studies and other documents--have already been prepared for inclusion in the 1976 edition which should be published by May). A review of incentive programs in the United States aimed at encouraging health science students to practice in shortage areas after graduation was made during 1974 and 1975, and the report on this review is now at the printer's.

Incentive programs is the term we use for any type of activity that may in some way influence students to practice in scarcity areas. We have arbitrarily divided these incentive programs into five major categories: (1) preceptorships, clerkships or other clinical and community experience in inner city and rural areas for students in health science schools; (2) placement services and other "matching" programs which bring together graduating students with communities in need of health manpower; (3) special courses in universities which help students understand the needs, problems and opportunities for practice in shortage areas (i.e., courses in language, culture and sensitivity to minority group health needs, and courses in how to set up a practice in a rural or inner city area); (4) financial incentives such as loan forgiveness programs, scholarship grants, tuition subsidies or tax exemptions in return for service in deprived areas; and (5) innovative delivery systems which tend to attract students and new health professionals to shortage areas--group practices, clinics and HMO's; telecommunications systems for clinical consultation and long-distance diagnosis; linkages with medical centers in the region; mobile units for clinical practice, health education and screening programs; use of physician's assistants and nurse practitioners in giving continuous, comprehensive health care, use of the team approach to health care delivery; and the availability of continuing education support for professional growth of health care personnel through advanced communications networks, and the opportunity to attend professional meetings and graduate university courses.

The first type of incentive program I mentioned was the preceptorship program in which students receive clinical and community experience in inner city or rural areas and hopefully become interested in practicing in these areas. We collected information on 243 preceptorship programs located in schools of dentistry, medicine, nursing (baccalaureate programs only), optometry, osteopathic medicine, pharmacy, podiatry and public health, and published this data in a

Directory of Preceptorship Programs. (We began compiling information on allied health preceptorships, but it became such a complicated task for the one staff person preparing the data that we decided to publish the directory without that section and to devise a plan to include allied health and all schools of nursing in the next edition.) The directory was prepared to meet the needs of faculty who want to begin or expand a preceptorship program at their institution, and to assist students who want to take a clinical elective in a rural or inner city location outside the state in which they are studying. We have distributed 5,000 copies and the requests are still coming in. (Single copies are free, as they are for all of the publications of the Manpower Distribution Project, but multiple orders or bulk orders are $1 per copy--well below publication cost.)

In order to test different methods of influencing students to go to shortage areas to practice, proposals for demonstration projects were invited by the National Health Council in late 1973 from non-profit organizations nationwide. The concept of the multidisciplinary health care team was encouraged for incorporation in the proposals on the advice of the Task Force which gave direction to the Manpower Distribution Project. Of the 38 proposals received, three were funded for one year by the National Health Council; five others were supported with funding from other sources. These eight demonstration projects were in operation during 1974; six continued in 1975 with funding from the original source or with new underwriting. The demonstration projects dealing with rural areas of the country have been located in Arizona, Arkansas, Georgia, Kentucky, Maine and Texas. The inner city projects are located in Cincinnati, Ohio and New Orleans, Louisiana.

I would like to briefly describe these projects and give you some of the results to date. And since we are in Kentucky, let's start with that one--the Appalachian Kentucky Health Manpower Service. Conducted by the University of Kentucky College of Medicine's Section for Special Student Programs, this project was funded in 1974 by NHC and since then by the Kentucky State Department for Human Resources. It is a placement service which brings health science students graduating from Kentucky schools in communication with the health providers--agencies, clinics and individuals--in need of health manpower in the 49 Appalachian Kentucky counties. Information on students who are from Appalachia or who are interested in Appalachian practice is computerized and published in a manual, and information on health providers in the 49 Kentucky counties in need of health manpower is also computerized and published. The listing of "Health Professions Students", which in 1975 included 2,000 students (representing 30 disciplines and from 26 schools), is sent to the health providers list; and the listing of "County Health Contacts", which in 1975 included 280 health providers, is sent to the students. "Saturday Seminars" are arranged during which students from different schools are transported to communities in Appalachian Kentucky to meet potential employers, health professionals currently practicing there, and community leaders; and to tour health facilities and other community resources. Two newsletters are distributed periodically to the students describing available jobs and practice locations in the 49 counties. "Med" describes Appalachian Kentucky medical practice opportunities, and "Health" describes Appalachian Kentucky health practice opportunities (nursing, pharmacy, allied health, etc.). During the two years the project has been in existence, 53 health science graduates have found positions in Appalachian Kentucky through the service. Those placed include three physicians, nine dentists, 14 registered nurses, four pharmacists, three practical nurses, three radiological technicians, two social workers, two medical technologists, a health services administrator, a dental assistant, a dental hygienist, a medical record administrator, a physical therapist--all full-time positions--and eight summer placements (four in nursing, one in dentistry, and three in social work).

The rural Maine project is a multidisciplinary preceptorship program implemented by Medical Care Development, Inc. It was funded in 1974 by NHC and in 1975 by the Maine Regional Medical Program. The program placed 53 students in 14 health professions during its first year of operation in 14 rural Maine hospitals, clinics and group practices for six-week experiences. Students came from 23 educational programs primarily in New England and New York--Albany Medical College, Boston University School of Nursing, Dartmouth Medical School, State University of New York at Stony Brook Health Education and Physician's Assistant Programs, Philadelphia College of Osteopathic Medicine, University of Connecticut School of Nursing, and others. In the 1975 extension of the program, 28 students in seven disciplines from 18 health disciplines were involved. To date, eight graduates who participated in the project are practicing in rural areas: four physician's assistants have taken positions at Jackman, Bucksport and Farmington, Maine, and at Coons Rapids, Michigan; two physical therapists have taken positions at Millinocket, Maine, and in a rural area outside Maine; one social worker is at Gardiner General Hospital in Maine; and one registered nurse is with Frontier Nursing in Kentucky. In addition, six M.D.'s who participated in the preceptorship program as medical students are in family practice residency programs--two in Maine and one each in Pennsylvania, Massachusetts, South Carolina and a western state. Decisions as to practice location, which the project attempts to influence, are in the future for most of the students who participated since they have not yet completed their training. Future plans for this project call for strengthening the program by including training in the team approach to health care for both preceptors and preceptees.

The New Orleans inner city demonstration project was implemented by Health Power Associates and involved preceptorship experiences in three neighborhood health centers and a Vision Clinic for students of optometry, dentistry, dental hygiene, pharmacy, social work, public health and nursing. During 1974, the project was funded by NHC; although funding was sought diligently in 1975, these efforts were unproductive. During its year of operation, however, the project was quite successful. A total of 45 students from nine schools participated in month-long multidisciplinary preceptorships, gaining clinical experience working under health professionals and attending weekly seminars. The seminars presented health professionals and health care administrators in programs designed to assist the students in understanding the greater impact that a multidisciplinary team approach can have on urban health problems, and how they, as health professionals, can be instrumental in developing and organizing inner city clinics to meet the needs and problems of ghetto areas, as well as achieve professional and personal satisfaction and growth. Thus far, nine graduating students have taken inner city clinic positions in New Orleans, Chicago and Houston--two optometrists, two pharmacists, two social workers, a registered nurse, a dental hygienist and a health services administrator. Many participants have not yet completed their training, but all indicated an interest in inner city practice at the conclusion of their preceptorship experience.

The Georgia Recruitment and Placement Project is conducted by the State Scholarship Commission and funded by the DHEW Region IV Health Manpower Program. It offers to graduating health science students in 16 disciplines in Georgia schools the opportunity for exposure to 35 rural and small town practice sites in the state. Slide and tape presentations are used at the 69 participating schools along with profiles of each community to interest students in participating in the program. Weekend or day-long visits and summer practice experiences are arranged to give the communities an opportunity to "sell" themselves to the prospective health professionals. The Commission pays travel costs and the community pays room and board. The results of the first recruitment and placement period (Spring, 1975) have been compiled. These figures show that 96 students applied for on-site visits to rural communities, 48 community visits were actually made, and 27 graduating students obtained employment in rural areas of Georgia through this program.

The Arizona demonstration project is sponsored by the University of Arizona College of Medicine and funded by the DHEW Region IX Health Manpower Program. In this multidisciplinary team preceptorship program, medical, nursing, dental and pharmacy students from the

University of Arizona at Tucson receive clinical and community experience at rural clinics in Benson, Marana and Arizona Job Colleges in Casa Grande--all National Health Service Corps sites. During the Fall of 1975, several teams of health science students received five- and six-week experiences at the clinics and in outreach activities (such as assessing the health needs of the small town of Rillito, located three miles from the Marana Community Clinic). A mobile unit is used to provide episodic health care with the purpose of getting the people to come to the clinic for treatment of chronic illness or follow up. The student teams generally consist of a medical student, two nursing students and a pharmacy or dental student; they work under teams of health professionals in the clinic and the mobile unit. Since none of the students who have participated in this program have as yet completed their training, the effects this experience will have on practice location cannot be measured at this time.

The Crystal City, Texas, project was implemented by IMAGE of Crystal City (Involvement of Mexican Americans in Gainful Endeavors) with funding from the Texas Regional Medical Program. Unfortunately, after one and one-half years, RMP funds were discontinued, and we have not been able to find other sources of support for this program. During the 18 months it was in existence, however, this multidisciplinary preceptorship program brought 12 health science students per quarter from the University of Texas at San Antonio and other nearby colleges to Crystal City for clinical experience on Saturdays in two clinics and a small hospital. The medical, nursing and social work students also assisted in pre-natal and well-baby clinics, and acted as counsellors to the high school health careers club in this community of Mexican-American migrant workers. Of the nearly 75 students who participated in this project during 1974 and the first half of 1975, several are known to have taken positions in rural Texas communities, but a follow-up survey is needed to ascertain the status and location of each participant.

The Cincinnati inner city project is a very different kind of program. An Inner City Work-Study Institute was sponsored by the University of Cincinnati College of Community Services during the summer of 1975. The project, which is funded by the Bureau of Health Manpower, DHEW, brought faculty in health services administration and nursing from 20 institutions in the United States to Cincinnati in June and July. They worked in inner city clinics, attended seminars on campus and developed new curriculum models to be used in their own schools. An analysis is being made of the responses received during a survey made in the Fall of 1975 to determine the degree of implementation of the new curriculum models in the participants' schools. These curriculum models are also being published by the University of Cincinnati. Overall goal of the project is to help faculty to educate and motivate students for careers in inner city health services.

The eighth and last of the eight demonstration projects is the Arkansas preceptorship program which was a short-term project during the summer of 1974 only; and no survey has been made of the participating medical and nursing students by the sponsor, the Arkansas Health Careers Council.

Now that I have told you about all eight of the National Health Council demonstration projects, I would like to describe just a couple of the hundreds of other incentive programs which the Manpower

Distribution Project has identified throughout the country--which in some way may influence young professionals to practice in shortage areas.

At the University of Washington in Seattle, the School of Nursing sponsors a special course called "Social Sensitivity in Health Care." It is multidisciplinary and is open to students in dentistry, health administration, medicine, nursing, nutrition, occupational therapy, pharmacy, physical therapy, and social work. It is a course in cultural and personal awareness, and focuses on the health problems and life styles of poverty and minority groups. Students explore the difficulties that ethnic populations face utilizing the health system. Barriers to access are examined--social, cultural, financial, psychological. Students' personal prejudices and how they affect professional performance are openly discussed. Six different field activities are a required part of the course. Options include: moving in with families in the central part of Seattle for a weekend to learn to relate to minority groups more effectively; watching a performance of the American Indian or Black Arts Theatres; talking with a Chinese herbalist; observing a Northwest Indian Pow-Wow; attending a meeting of homosexuals; and visiting local health facilities such as the Women's Clinic, Rape Relief Center, Skid Road Drop-In Center, Asian Clinic, County Hospital Emergency Room, and Center for Drug Addiction Services. The course is limited to 20 and is often oversubscribed, even though offered in the evening. Some follow-up has been done on participants since the course began in 1973. One RN succeeded in amending a patient history form at County Hospital to include cultural factors; another RN wrote her Master's thesis on attitudes toward the health care system as seen by people of Skid Road; a pharmacist worked at a Chicano Clinic in Colorado; a nurse practitioner is employed in a Seattle Housing Project Clinic; an RN is counseling minority nursing students at the University of Washington; a social worker is employed at a clinic for alcoholics he visited during the course; and a health administrator became a volunteer at the Skid Road Drop-In Center. By teaching future health professionals cultural and social differences among ethnic groups, this special course helps them to relate more effectively to minority patients in underserved areas.

An example of an innovative health care delivery system that I would like to mention is the Polk County Mobile Health Care Unit in Crookston, Minnesota. Developed by the Polk County Nursing Service staff and funded through the Northlands Regional Medical Program, the Polk County Mobile Health Care Unit serves 13 doctorless towns and villages in a 2,000 square mile area in northwest Minnesota. In operation since 1972, the Mobile Unit is staffed by two registered nurses. Policies for operations, standards for referral, and types of services offered are determined by a Medical Advisory Committee which works closely with the nursing staff. The "health care" versus "sick care" focus of the project is demonstrated by the emphasis on early detection of illness through screening, and prevention of illness through education, immunization and counseling. The development of resident community liaison aides to act as coordinators for the Mobile Unit has encouraged local confidence and participation. In 1974, the project reported 4,331 units of service provided at a total cost of $33,941, or $7.84 per unit. County subsidy of the program permits the average cost to the consumer to be considerably lower--$6 for each nursing assessment, $1 for each immunization, $2 for each procedure. Utilization per village or town averaged approximately 38%. Although most patients are self-referred, prescribed treatment is given upon written request of the physician. The project demonstrates that through full utilization of nursing capability, services appropriate to the nursing function but often provided by physicians in other areas, can be offered at relatively low cost. The Polk County Mobile Health Care Unit does not solve the problems of medically isolated populations, but it does offer some access to health care that did not exist before and provides a unique opportunity to RNs for practice in an underserved area.

In order to share what has been learned through both the NHC demonstration projects and the dozens of other incentive programs we have identified throughout the country, the NHC Manpower Distribution Project held a series of six regional workshops for students, faculty and administrators of schools of the health professions in different parts of the United States in 1974 and 1975. These provided students with information on opportunities to practice in shortage areas and provided faculty and deans with resource information about projects and programs being implemented at other educational institutions which influence students to later locate in scarcity areas to practice. We will be holding our National Conference on Health Manpower Distribution in New Orleans later this week--beginning Thursday evening and ending Saturday noon, in case any of you would like to attend. It will be preceded by a one-day workshop for faculty on how to set up or expand preceptorship programs--which has been oversubscribed.

We have been studying the programs now in existence in the United States to voluntarily attract graduating health science students and those about to begin practice to the areas of greatest need. Several factors emerge as important in the decision-making process, but the one which appears to dominate is actual exposure to the area. The student who has had a positive experience in a rural or inner city community, getting to know the people, observing other health professionals there, learning about the resources available, and feeling needed and wanted--this student is much more likely to choose to practice in that community, or one like it, when the decision is made about practice location. I am not an educator, but I would like to humbly suggest to those of you who wish to respond to the needs for health manpower in your regions that it would seem to be most appropriate (1) to develop new or expand existing preceptorship programs in shortage areas; (2) to develop special courses giving the students better understanding of and sensitivity to the language, culture and socio-economic factors present in specific shortage areas; and (3) to promote better systems for placing and matching graduating students with opportunities to serve in shortage areas.

APPROACHES TO THE DEVELOPMENT OF LEADERSHIP SKILLS AND STRATEGIES FOR CHANGE

Ronald Harper

Director
Educational Services
Northwest Regional Educational Laboratory
710 S.W. Second Avenue
Portland, Oregon 97204

Effective Leadership

The fundamentals of effective leadership are accomplished by striving for improvement in the following areas:

- -- Establishing the goals of an organization
- -- Designing a system that achieves the goals
- -- Selecting a staff that has the necessary qualifications, skills, and abilities to operate the system
- -- Providing incentives and motivations to maintain and improve staff morale
- -- Establishing an ongoing assessment of client and/or product needs

The leadership of a viable educational agency or institution should focus continually on these basic concepts.

Establishing the Ends

The effective leader has to ask: What is our purpose for existing? Who are our potential clients? What are the needs of the clients? What are the parameters in meeting the clients' needs? Are our goals nebulous or client-specific? Can the clients' needs be met in a centralized or decentralized mode? Are the users of the "product" once removed from the institution? Two types of clients exist in nearly all professional and vocational institutions--the first consists of the student, and the second consists of the public and/or other clients.

In assessing goals, the needs of both sets of clients must be fully known. Continual assessment of goals is always being accomplished through research and study by the effective leader.

Designing the System

In human services, defining the differential skills needed to achieve the goals of the organization is the most crucial task posed to leadership for designing the system. The major tendency in most organizations is to overestimate the skills needed to accomplish a particular task. When we "overhire" in skills, morale becomes a major factor in causing excessive turnovers in personnel.

It is here that the organization shifts from preparation to performance in the process of leadership.

The power base of any human services system is built into the designed delivery system. In the long run, the clients of the system will decide whether the organization will disappear, remain static, or grow. Leadership must have a method of systematic feedback from the clients to capitalize on this power base.

Incentives and Staff Motivation

What are the ingredients of providing incentives and motivation within an institution?

Rule compliance--the "rules of the game" of the institution are accepted: reports are on time, legal requirements are met, and institutional requirements are accepted by staff.

Instrumental systems rewards--this includes fringe benefits, working conditions, health and welfare provisions for the staff.

Instrumental individual differences--are differential performances noted objectively within the institution? Does the staff member who walks the extra mile in performance receive a pat on the back? Does the staff member who does not adequately perform receive the intensive care that is required by the leadership of the institution? Are incentives provided objectively within the organization?

Intrinsic role performance satisfaction--the staff members are task oriented and enjoy doing their tasks within the organization.

Internalization of organizational goals--the staff members of an organization accept the goals of the organization as their own.

Involvement in social activities--the importance of the social activities within the organization to the employees.

These are the six areas in which incentives and motivation occur within a system. The leadership of the organization needs to analyze each of these areas as to the strengths and weaknesses of the present system. It must be clearly understood that all six elements will have differential importance to each staff member. It is best analyzed individually for each staff member.

Commitment to the Organization

Can we assume that an employee who is well paid and reasonably content will be committed to the organization? Several factors mitigate against commitment. In human service organizations, most employees are professionally oriented rather than institutionally oriented. Most professionals change jobs several times in their careers. Other factors are unrealized expectations, colleagues, supervisors, and disappointments of one sort or another.

The lack of commitment to an organization is a real problem in organizations. Some positive aspects of commitment include: staff requires less supervision, accepts responsibility, tends to fuse organizational and individual goals, sees responsibility, sees own interest and organizational interest identical.

There are five classes of experiences that have an impact on commitment in the following rank order:

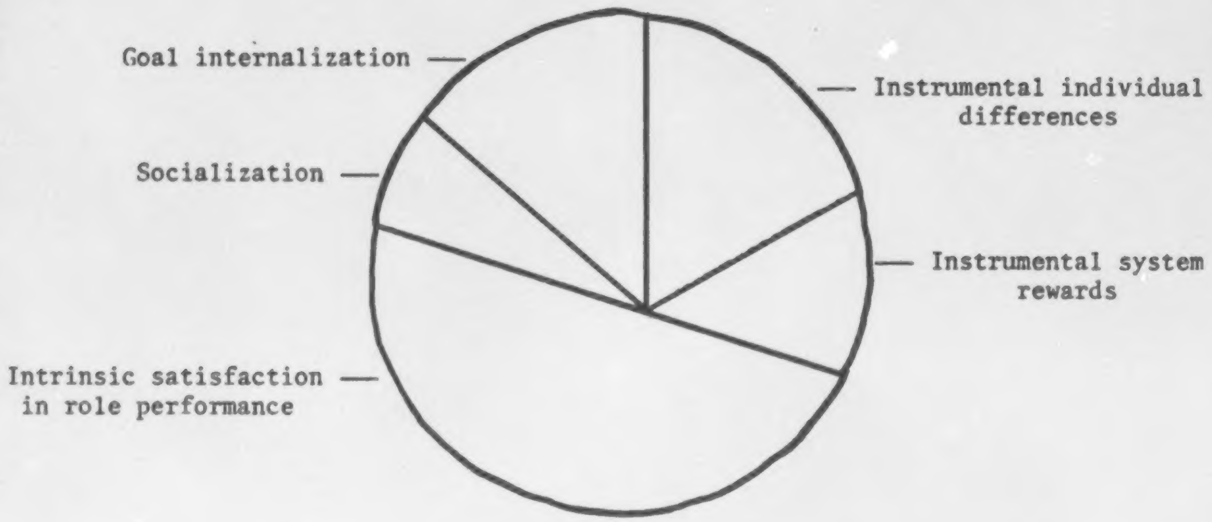
1. The organization views the employee as a valued member of the organization;
2. The members of the employees' group have positive feelings toward the organization;
3. The employees' expectations are met by the organization;
4. The employees who feel the organization expects them to be committed are more committed:
5. An employee's first year of employment is a crucial factor affecting his commitment.

Organizational development through leadership is based on effective use of motivational factors and attempting to strive for commitment to the organization.

How to Analyze

	Factors	Employee X	Employee Y
1.	Rule compliance	Sees as not important, waste of time	Always complies
2.	Instrumental systems reward	High priority for retirement	Very little concern to employer
3.	Instrumental individual differences	The strong need for constant reimforcement	Medium concern, likes praise but not criticism
4.	Intrinsic satisfaction in role performance	Very task oriented	Tedious in hi [illegible] cern
5.	Internalization of organizational goals	Accepts goals as own	Very low priority

This is an analysis from the supervisor's point of view--another way to accomplish the analysis is to have the employee analyze his own perceptions through a Katz circle.



Employee Z

Note that this employee valued satisfaction in role performance but did not even consider rule compliance. What is important for the leader to know is what really motivates the employee and to provide as much reinforcement to the member as the leader can effectively provide. There are no best motivators or incentives, but the effective leader will use the ones that keep performance and efficiency at the highest level.

PUTTING KNOWLEDGE TO WORK

Don Frey

Project Director
The Ohio Program for Dental Health Education in Schools
Metropolitan Health Planning Corporation
908 Standard Building
Cleveland, Ohio 44113

I intend to try, during the next hour, to integrate what's taken place over the last couple of days. The agenda for today, "Putting Knowledge to Work," is now being passed out.*

I will try to relate this whole discussion of change to the Health Planning and Resources Development Act of 1974--which is the Congress' design for effecting change in the health delivery system. Then we will see whether some of these things we've learned in the last two days can be put to work on some specific problems--the kinds of problems you will meet in coping with this inspired change agent Act in your own locality. Maybe, out of the various group solutions, there will be five or six approaches that would be useful to us all. After watching for the last couple of days, I am confident that I will be able to write my next paper out of the good ideas that come from you people.

Let me review briefly some of the emphases of these two interesting days. First, there has been much emphasis on the accountability of people within the framework of education, utilization of people in the health professions, and the cost of the health care system in relation to what we are delivering and what the people are paying for.

---

*See Appendix B, pages 17-18.

Secondly, there has been emphasis on *change* and why it's taking place. Cost is one of the things that's motivating change. The third emphasis has been the *interrelationships* of those who produce health workers, those who employ them and those whom they serve. One of the pleasing things about many of these speakers was that they did talk about the patient--the client, the person at the end of this chain--rather than regarding the people who produce health workers and the health workers themselves as a closed system. The fourth emphasis was on the *responsibility* of health professions educators/leaders to be part of this process of change. Fifth, there was emphasis on the fact that the educator/leader, at whatever level, can significantly *influence change*. The educator need not be the victim of change from higher levels, but can be its director, its effectuator, with influence at whatever level he or she happens to be, as well as on other levels. And sixth, in being *a part of* this change process--not its victim--we can *alter* the change process, or even resist the change process if we think that's necessary, or *initiate* needed changes ourselves by using certain methods, strategies and tactics. These are the six areas of emphasis that I have heard here the past two days.

We opened the conference with Wade Mountz telling us that it is necessary for people to participate, a belief based on his experience as a leader of the American Hospital Association. Ruth Roemer opened with the idea that everyone who is a part of this system (and certainly the teacher) should include attitudes and ideas on basic matters of health policy--that you should have a point of view, and you should work for that particular point of view.

The accountability question came up early in Mrs. Roemer's presentation; she talked about the rational use of these resources--this $118 billion that we're spending for health. She then got onto the need for change, the motivations of change, the need for equity--equal access to good health care. Ruth talked about the coming national health insurance; as you may recall, she gave a very striking comparison with other nations' systems and their experiences. She suggested that the National Health Planning and Resources Development Act is probably a necessary mechanisms for getting the system in shape to accept national health insurance and to achieve the goals of equity that are in there.

The Health Systems Agency is certainly going to be one of the key mechanisms for allocating resources and for being accountable for their use. Finally, I have a big objection here to one point that she made; I think I ought to give the other point of view, although I'm very open on this particular subject. Ruth felt that, for reasons of accountability, responsibility, responsiveness to the people, the Health Systems Agencies ought to be agencies of local government. I don't necessarily think they should be. I don't necessarily think they shouldn't be. The history of this in the Act, incidentally, is quite interesting. Those who believe that nonprofit, independent, autonomous agencies should be the Health Systems Agencies won in the lobbying effort; it wasn't until the bill went into conference in December of 1974 that language was finally put in to allow a governmental entity to become the Health Systems Agency. There is a reason for that: in comprehensive planning as a national movement, the few successful examples were, for the most part, nonprofit agencies. So, in places where nonprofit agencies are the comprehensive health planning (CHP) agencies, they will probably become the Health Systems Agencies. There is a large voluntary hospital element as well, and often private (as opposed to state) medical schools and other schools. If a large proportion of an area's health system is to be in voluntary, private, nonprofit hands, then it may well be that the Health Systems Agency in that area would be more sympathetic to working with that kind of group than a purely governmental agency. On the other hand, in many areas of the country, there are mostly public hospitals, supported with tax dollars; in that situation, it may well be that a governmental agency would work better.

The one issue that keeps coming up is responsibility/accountability. Generally, a nonprofit, independent agency isn't answerable to anybody. As you will see in the Act, the Congress made it very answerable through its representation mechanisms. Also, some agencies--a good example is the South Florida Hospital Planning Council--have contracts with local government for certain kinds of planning purposes; a contract makes you very accountable. In fact, for the sake of argument, I would say that a contract is a much more accountable mechanism than a civil servant who is protected by Civil Service and can't be fired from his job. Be that as it may, this idea that the HSA has to be a governmental agency in order to be responsible--I don't think that's true. I think that either could work well. I think the Congress deliberately provided for alternatives, to see which will work better. As someone pointed out, setting up the competitive mechanism is a typical Congressional solution, going back to things like TVA, which made Christians of the power companies. It is a thoroughly American mechanism, and I'm not trying to be political. In fact, since I'm not running for office, I'm not even trying to be statesman-like in saying that either/or is a perfectly reasonable thing in this instance.

I have problems when people start talking about percentages or ratios in health manpower. I think the figure of one general practitioner for every 2500 people is perfectly reasonable for national planning purposes and allocation of national resources. Someone had to decide in terms of the amount of money we have to spend and what we might need in the way of doctors that a good figure for admissions to American medical schools would be about 15,000 per year. This figure was someone's idea of our national need for physician manpower, balanced against our national resources. The trouble with that kind of thing is that in Smalltown, U.S.A., someone says, "We don't have one GP for 2500 people." When you get down to the local level, the ratio is meaningless. I have asked no less than six directors of family practice programs at medical schools, "How many of the old-fashioned guys who give their own shots and stand around while they take your temperature are replaced by one of these young people--you know, the new model GP who works with ten kinds of assistants?" The answer is invariably, "Well, we're working on that." Nobody has any good answers.

When you get down to area-wide planning, the efficiency or lack of efficiency of doctors in utilizing a support system can throw these kinds of ratios into a cocked hat. The danger in these kinds of ratios is that people in localized areas think that the national ratio is something that was chipped in stone on a mountain. They think if they aren't meeting it, they're not delivering the service. When you get to what's happening in the local health system, you can be a lot more sensible than that. One of the things this conference has brought out heavily is that you people have discretionary power to look, to question and to say "What fits here?" Never mind what somebody says on a national level. This may be a useful approach for national allocation of resources; the error comes when people tend to drop this to their own locale and their own situation without looking at what their needs might be.

I think we did get emphasis on change in organizational patterms as well. The HMO* emphasis that Ruth gave was very good. The HMO is a kind of uniquely American mechanism for setting up real competition. Now, I would submit that the choice between two general practitioners, both of whom practice in the same way, is not a choice; but a choice between fee-for-service general practice and a Health Maintenance Organization is a real choice for people to make. And how do you live with that kind of world in which you are going to have to prepare people for work in these conflicting systems? Somebody has to prepare the last medical assistant for the last practitioner of fee-for-service medicine in the United States of America sometime up in the next century. In the interim, we must produce people to work in a variety of systems [for the delivery of health services].

A concomitant of accountability is a skepticism on the part of Congress and of the people. Symptomatic of that is the questioning about the whole licensing and credentialing mechanism. A number of speakers cited the New York Times series on the unnecessary surgery, the unnecessary deaths and the 72 license revocations, when the best estimates are that there are at least 15,000 incompetent physicians practicing. If there are a thousand incompetent physicians practicing and we are revoking only six or eight licenses a year nationally, there's something wrong. These are symptomatic of questioning and wanting to make the system more accountable to the people and to the Congress. Ruth closed with emphasis on the bact that we are talking about a system, about relationships. The goal is to make that system more rational and more responsible.

---

*Health Maintenance Organization.

Mary Allen Jolly opened with the fact that change is confusion--"Is anybody driving this bus?" And the real question arose, "How do you keep yourself, your associates and your students on the track in all this confusion?" How do you become a director of change instead of its victim? The point was made that there are some logical alternatives to just working with the health care system--such things as nutrition and housing. The health care system may not be the best way to get help. Unfortunately, logic has nothing to do with it; they are going to tinker with the health care system. The Act which we will discuss today (which is now our national health care policy) is the perceived need of the people; that's what has come through the Congress. This year, as Blue Cross and other people kick their rates up again--Blue Cross in northeastern Ohio was talking about a 60% increase for individual contractors, as opposed to groups--the screams will go back to Congress again. We're going to get emphasis, quite possibly, on the wrong way of achieving health in this nation. This is a perceived need; and in a democracy, you have to do something about perceived needs. You have to show people what their real needs are before you can get action in that direction. Timing was mentioned any number of times as being vital in effecting change. I would agree with Mary Allen Jolly that block grants--the current proposals of the rightists (and the not-so-rightists) of the Republican party as a means of doing something about changing the system, of giving it back to the states--are probably not going to succeed in this Congress. Depending upon what happens in November, they might succeed in the next Congress. If this kind of block granting occurs, then you'll be going into state politics to get your money, because it will all go to your state capitol--less money, though. As was pointed out, "block" really means "less." If it happens, what do we do about it? Are there any controls? I think that's one of the things we want to discuss today.

It was pointed out by Mary Jolly that you have to effect change through the democratic process. The difficulty is that the democratic process implies that there are two sides to every question; and that's probably true. I have great difficulty, though, believing that both sides are equally good. I think there are better answers, if not necessarily absolutely right answers. There probably are no wrong answers in a democracy--except to abandon the democracy--because democracy is a system of change.

Mary talked about five characteristics for success in the political process: (1) to understand yourself and your commitment; (2) to have a sense of values and the courage to make moral decisions; (3) to assume that you have to take risks; (4) to communicate; and (5) to view political action as a significant aspect of professionalism.

People have been coming back to this fact: that just preparing students doesn't make you a professional in this field.

Juliette Lester, in a valuable discussion on the regulation process and the implementation of federal acts, pointed out that no one, no matter where he is, lacks the power to do something about this process. If there's anything that came out of that discussion for me, and I hope for you, it is the fact that there are any number of points in this process for you to intervene and do something about it, even to be creative.

First, you should be making input to your organization--initially, in legislation and then in responding to proposed regulations. Your organizations should be communicating down to you and you can communicate back up to them. Believe me, if your national professional organization doesn't have a two-way mechanisms of communication, you first ought to change that. You should proceed organizationally and individually. You will be listened to if you comment on proposed legislation. And, if the regulations don't seem to work well as an act is implemented, you can show good reasons why they are not achieving the intent of the original legislation, they can be amended.

When you start into the applications process, after the regulations for implementation have been adopted, certain things can be decided on the basis of the application for particular aspects of a project. The nurse clinician program is a good example of this type of decision making. Creative people in education look at the Acts, the regulations and the money available, decide what they want to do and make application. Then, when the people in the Bureau see it, they will make a decision that probably is not explicit in either the Act or the regulations, but will be acceptable in the application process. Even in applying for money, you have a possibility of effecting change. In the case of PL 93-641, Congress has become increasingly shy of the regulation-writing process in certain of the federal departments. In this particular act, Congress itself wrote the regulations. It's a very detailed Act.

In the Monday afternoon discussions, we say ways in which PL 93-641 is manifested in North Carolina, in New Hampshire, in New Mexico. We also saw evidence of public/private conflict. There will be wide state and local variance in how this act will be implemented, influenced by style, history and differences in ways of solving problems that are characteristic of regions in this country. We are certainly not going to have a standardized way of carrying out this Act nationwide. All of us will have to look at health planning within the framework of where we live and the systems of health planning in our own areas.

We also heard people talking about the important interrelation ships between education and the delivery system. Jerry Patterson discussed linkage between their project, which is educational, and the delivery system in Alabama. In the group for which Juliette Lester was the resource person, it was suggested that maybe we don't have much time, that the system may be getting set in cement, and that if we're going to effect change, we'd better get on with it. I don't necessarily think that's true, but it's a view. If any one thing came out of that discussion, it was the fact that it really is important that we get involved in the politics of health.

Another thing that came out almost immediately in that particular discussion was that you have a duty to your students to teach them something about how to effect change in the health system, not just send them out as well-prepared technicians. You know darn well that the only thing you can be certain of is that you're sending them out into a world of change, including change in the technology of the field for which you have prepared them. The half-life of many of these learnings is ten years or less. So, you must equip them as students to live within a changing system and to grapple with changes in their own areas. We have to educate students for change. Another thing brought out in one of the discussions was the fact that we have to build a better system of interrelationships: how to take advantage of the technology for educating people, both in formal institutions and in the system itself; how we interrelate those; and what's your role there. It was pointed out in a couple of instances that resistance to change is a perfectly legitimate thing, but you have to know how to use the system for that, too.

On Tuesday, it was pointed out that we live in a world of change, and we were asked to consider how we go about it. Dr. Gardner talked about this responsibility--again, systematic thought--and responsibility to participate. We have to think about the system and do something about it. He gave us eight very good steps and then touched on the accountability question. But it isn't just a change within your institution that you are effecting. How does it affect the rest of the system and the people, the clients out there? You have a responsibility and an accountability for these kinds of things.

The panel of reactors talked about the fact that time and environment should match your innovations. You must relate your innovations to the system in which you find yourself, the environment, the climate and the timing. You have to know, as Arch Lugenbeel said, when and how to offer solutions. Many of us have been plagued by people who offer more solutions than there are problems! Keith Johnson brought up the very real fact that too often local people or area people think of themselves as reactors to change, rather than as innovators, that it is not necessary to be a victim of change, and that there are areas of discretionary power. No matter where you live or whatever your level of responsibility, your question is, "How do you find out what these areas are?" Within a framework of legality, how do you get as much discretionary area to work in as possible, as well as attempting to change the framework? But that, as we all know, takes time.

Ken Skaggs talked about this again the necessity for questioning and that the questioning should be ongoing. Why not begin education when the students are ready, rather than at the beginning of a semester? I'm reminded of the short quote which Robert Kennedy used so often, that most people see things as they are and ask "why?" I see things that never were and ask "why not?" Ken did question these things. He did talk about questioning educational methods, about the emergence of competency-based and performance-based curriculums, about new teaching tools. What other opportunities do we have for creating new learning experiences as a result of effecting change in the delivery system?

Finally, in one of the discussions on Tuesday, it was mentioned that we may not be listening to our public, our market, the importance of planning for linkages between those who work in the system, and those who are affected by it. Since I am a highly skeptical person, I will not comment on the second presentation on Tuesday morning, except by way of apology, to say that one area mentioned--meditation--has been taken out of the realm of mumbo-jumbo. I think the great thing is to take these things out of the realm of mumbo-jumbo and not leave them to the charlatans, but get them where they belong--in the area of inquiry. Meditation has been taken out of all the far eastern mysticism and so on. A book called The Relaxation Response by Herbert Benson, M.D., achieved second place on the New York Times bestseller list on Sunday. It describes purely in ordinary medical and biological terms the ways this relaxation--lowering blood pressure, decreasing tension--can be achieved through known and tested methods, without getting it all mixed up in incense and other things. These kinds of things are worthy of definition. I doubt seriously if an M.D. would have done a serious book like that a few years ago. I'm glad to see it's passed Winning Through Intimidation on the bestseller list.

And then yesterday afternoon, we got into some mechanisms and tools to assist us in effecting change, in approaching our problems. Ron Harper emphasized the interaction between the health system and the faculty and the student, and timing as a necessity in change. Change is coming, and one of the things we're dealing with here is ways of dealing with the pain of change, because change is painful. We just have to learn to deal with it.

Jerry Patterson was talking about criteria and how to adapt these criteria to dealing with change in your own situation. He presented an interesting way of analyzing your problem and looking at change: divide a sheet of paper into the change forces, the things that are pushing you to do this, the inertia forces--the tendency of resting bodies to stay at rest--and then, the interference forces that cause static while you're trying to get the job done. We saw a fascinating analytic method of resolving conflict; much conflict, of course, can be avoided by knowledge. Reid Mott, in Anatomy of a Coordinating Council, presents the analytic method of resolving conflict, of breaking it down into pieces and then finding more information; eventually, you may find you really don't have an argument.

Leslie Wykoff showed us how very quickly we can look at a large body of knowledge and assist in conflict resolution, a part of the process of effecting change. And finally, we walked through the whole change process in a very sensitive area with Mary Jane Fogal--career mobility for nursing. She closed with the important thing: the fact that this is imposed in a social system. This thing we live with, regardless of whether some people think of it as a health or medical or scientific system, is really a social order and subject to the same rules as the exotic tribes we study. Some of these things have been in place as a social system for many, many years. The hospital orders in the church, for example, who have been doing certain things in certain ways for 500 years, are part of this pluralistic system of ours. This is a social system, and you have to think of it in that way, as well as on the basis of pure, medical, known facts.

That brings us to a discussion of Public Law 93-641, the Congress' grand design for changing things. For those of you who have not looked at the law (unfortunately, the feds did run out of reprints of their very nice digest of the total law)--all of these things I'm going to mention from here on in, I have the references here at the front. Don't ask me for citations; come up and write them down yourself. I'll have them here on the end of the table. Just don't steal them; some of them are the only copies I can get. But in order to give you something, we reprinted the findings and purposes and the ten priorities the Congress has laid out for this system for change--these are your pink sheets.*

Might I say a couple of things, though, in a summary of these points I was making. We're undergoing a very great transition in local political endeavor. This isn't just something that all of these speakers suddenly decided on as a thing that you ought to do now. There are reasons for it. Federal priorities are going to be more sharply defined, including the final form of the new health manpower act: (1) There'll be a lot less of this one-to-one relationship between you and the federal bureau where, if you go through all the right steps, you'll get your money. (2) There'll be more interacting relationships and probably money coming from a number of sources for what you're doing. This requires much more political activity. We used to think of layer-cake federalism--federal, state and local. It doesn't work that way anymore; we've got more of a marble-cake federalism. You see manifestations of federal programs working at the local level in many areas, and you see municipalities and other people running Washington offices. It's a much more complex world, and there are people getting and sending messages in a variety of ways, both vertically and horizontally. It's a complex world and it's one of the reasons that, in order to prepare students to do things, you've got to be involved in the political world. Incidentally, we certainly are going to see a great change in the ways of looking at manpower, particularly for nursing and allied health, and not just because there's going to be a lot less money. It's because of the disappointment of Congress in what has happened. The best current explanation is about a year and a half old: Senate Report 93-1133 from Senator Kennedy's committee on the Health Manpower Act. That one volume, 585 pages, is the best explanation I've ever seen of the health manpower mess (described by Ruth Roemer on Monday) and how we got that way. It has a good deal of documentation, reporting and so on. The other failure--of the student loan program, insofar as geographic maldistribution is concerned--is reported in the Government Accounting Office study. More than 20,000 physicians got loans from the mid-60's period on, with the possibility of repaying some of that loan by service in an underserved area. That was the Congressional hope Actually, less than 100 of those more than 20,000 physicians ever repaid any portion of that loan--our money--by service in an underserved area. Only 22 of that less-than-100 did it to get loan forgiveness; the rest would have gone to that underserved area anyway because they liked it. In summing all of this up, the Congress is very disillusioned. They've been told by medical schools and other places that all these things would take place if they just gave them the money. They got the money, and then those things didn't happen. Now, it's going to be different. If they're not going to deliver, they're not going to get any money.

---

*See Appendix B, pages 19-21.

Now, there's nothing really new in this--states do it and have been doing it. In 1967, I served on the Campbell Committee (Illinois) and later on the commission that implemented the Campbell Act. We subsidized both public and private education in the health field with a clear idea (at least, we thought it was clear at the time--it got muddied later) of what was needed in the delivery system and a mechanism set up to change those ideas and change the subsidy to do this. California does this for all postsecondary education under the Lankerman Act--everybody has to justify what they're producing if they're going to get extra money over and above basic funding. This isn't very hard for vocational educators to go with; they've been living with it for years. It's harder for other elements of higher education. The message here, of course, is that health occupations education has been the Congress' favorite child, whether we think so or not. We've been getting over and above $400-800 million a year for a good many years now. If you're going to be treated as a special area of education, then you've got to deliver. Some people--those people who are not going to relate to that--are probably going to have to fall back on state funding and other resources. This is the accountability question again. Public Law 93-641 is a process that is only beginning. It is at its worst point right now, because we're just beginning implementation of the Act. We're at the point where everybody's heard of it and scared of it. As the Act is implemented, I think there will be less fear. Briefly, it combines four previous programs: Hill-Burton (the Hospital Constructional Program which has been around since 1946); the two great health initiatives of the 89th Congress, PL 89-239 (Regional Medical Programs) and PL 89-749 (the Manpower Planning Act); and finally, one other program passed by the health conference of the 89th Congress, the Experimental Health Services Delivery System, which only went in nineteen places in the country. It probably goes without saying that current authorizations, to say nothing of appropriations, are nowhere near the aggregate funding of these four previous programs--there's less money all around. Now, the amazing thing about the Act is that in no way can it be said that comprehensive health planning has proved itself in the years since 1966; in very few places has it proved itself at all. Yet, in moving to a new Act, the Congress (conceptually, at least) stuck with a lot more of the same--this whole cooperative effort. But, they did get a heck of a lot more specific. PL 89-749 allowed almost anyone to do almost anything in the name of health planning, and almost anybody did--contracted with the glittering generalizations in PL 89-749. Now, we're going to do all these things cooperatively, without interfering with the present system in any way, and also toss a few bones to the various health professions pressure groups.

This new Act is down to business. I won't talk about it, because the findings and purposes of the Congress are there on those pink sheets.* But, Congress said (and I'll only quote one of these that sums up the frustrations of the Congress and the sorts of things the other speakers here have said):

---

*See Appendix B, pages 19-21.

> "The massive infusion of federal funds into the existing health care system has contributed to inflationary increases in the cost of health care and failed to produce an adequate supply or distribution of health resources and has consequently not made equal access to such resources possible for everyone."

And then, they talk about manpower, facilities and so on. The Congress then set up ten priorities, to include an emphasis on health education of the public; and that is, we should teach people to take better care of themselves, to use preventive services, to realize that they have been conned by the health professions into thinking that "health" means getting cured when you get sick, rather than keeping well. As Secretary Casper pointed out only a couple weeks ago, much more could be done in this country on the basis of individual decisions to do things. Unfortunately, he didn't say that we need better mechanisms for motivating people to do so. It is a known fact that more teenage girls than ever are smoking, despite all the evidence against smoking. Yet millions of people have given up smoking, but they are mostly the scared, middle-aged people who feel that the threat is real.

The priorities are set up; interestingly, five of the ten priorities have to do with multi-institutional or cooperative kinds of sharing of services, resources and what-have-you. We weren't just whistling "Dixie" when we talked here, the last two days, about being part of a larger system. Five of the ten priorities have to do with sharing, cooperation, relating things. Primary care provision is number one. Another manpower priority is the increased use of physician extenders--nurse practitioners, medical assistants and so on. By implication, and I think it will come out in the regs,* the use of physician extenders as well. There is going to be some real conflict about that. They're going to feel that this is happening for the first time anywhere in any profession--you know, "Why me, God?" They hoped it would go away.

The entire country will be divided into health service areas (HSAs). I'll go through this quickly, because a lot of you already know that you're in a health service area. An "area" is what you could call critical mass: meaningful size, containing various levels of services and care, and adequate population (at least 500,000 and up to 3,000,000 people, unless it means splitting a standard metropolitan area). There are three or four possible exceptions to that--Los Angeles, Chicago, New York and a few more. So, you have an area of meaningful size with a range of services in it. After the areas have been designated, a Health Systems Agency (HSA) will be created to implement the Act. The application process is currently underway.

In many cases, possibly most, HSAs will be the existing comprehensive health planning agencies, although there is nothing to preclude another entity--any one of three kinds--applying to become an HSA. The agency has to be one of three things-- a nonprofit agency set up for the purpose, a council of government, or an agency as a single unit of general-purpose local government, provided it covers the entire service area. In no case, even if it's set up as an agency of government, does the governing body of that agency have veto power over the HSA Board. The Board itself, regardless of whether it is a creature of government, gets autonomous power.

---

*Rules and regulations for implementation of PL 93-641.

Now, an interesting sidelight here is the fact that no educational institution may become an HSA or control an HSA in any way. Last year was the diamond jubilee of the Agricultural Extension Service, a university-run program which has contributed much, if not most, to making American agriculture the envy of the world. But, in the eyes of Congress and of the Undersecretary of HEW, when they tried to create a medical extension service on exactly the same principles--that is, moving the advances of the university centers out into the field through the Regional Medical Program--the medical schools failed to emulate what had been done by the ag schools. I don't think the Regional Medical Programs were a complete failure, but the Undersecretary of HEW stated in testimony before Congress that $500 million went down the drain. So, no HSA can be controlled in any way by an educational institution.

Now, the detail in PL 93-641 is fantastic. There are 52 pages of text, as compared to only 10 pages in the previous act. The 314B area-wide planning agency occupied exactly 15 lines in the original act; the HSA occupies 13 pages of text. In many respects, the Congress wrote the regulations in this Act; they didn't leave it up to the Secretary to draft regulations. Governing bodies must have 10 to 30 members; most people are choosing 30--I doubt if there's going to be a 10-member one in the country. There must be a consumer majority. On a 30-member board, 16 have to be consumers; 12 to 14 members come from the health field. There are five provider categories which must be represented: the professions (medicine, nursing, etc.), health care institutions (hospitals, nursing homes, etc.), health care finance (Blue Cross, private insurance), health professions schools (if there is one in the area, and there usually is), and allied health workers. Also mandated, if present, are Veterans Administration and Health Maintenance Organization representatives. If there is a Health Maintenance Organization in the area, they automatically get a representative; if there's a veterans' hospital in the area, they automatically get a representative. In most places, there already are VA hospitals and HMOs; therefore, you're really dealing with only 12 providers on your board. We've got 12 providers now, one of whom is an allied health worker; at least one is an educator; one-third must be direct providers--they must actually be in the laying-on-of-hands business. So, as you can see, agencies are struggling to get people who can wear a number of hats.

It's tough. In our agency, for example, with those 12 slots open, the medical society applied for five and the hospital association applied for five. The last person put on our tentative board was chosen as the allied health representative. She also represents a specific county and is a woman; both of these are important, in addition to her being in allied health. You've got to split up representation somehow. And we're going to ask you people to use some of the tools you've discussed in these two days here to start solving these kinds of problems. Now, that's complicated even further.

It's going to be very interesting. Every Health Systems Agency must have a health systems plan (an HSP)--a five-year, where-do-we-want-to-be-in-1981 kind of thing. It must also have an annual implementation plan (AIP)--what will we do this year? The terrible thing is, there will be no funds for development. The basic problem, which I'll discuss next, is that the Congress put some teeth into the Act for the first time. Some of us kind of think they're deciduous teeth; they're not very big or threatening, but they're there. And that's fine. They provide a lever to move the system. But, the thing that ought to accompany teeth is a carrot to hold out in front. They did put developmental funds into the Act, but there aren't going to be any developmental funds. So, all we've got to do is say, "You can't do this because it's a review mechanism," which I'll touch on. But we can't, on the other hand, say, "But if you'll do this in order to pull the system together better, we'll provide some seed funds." That's not going to be there, at least for the first year, and maybe not for one or two more in a time of HEW dollar deficit. And that's bad. It's one of the basic drawbacks in what I happen to think is a magnificent example of the legislative process. I have never been so proud of a group of legislators as I was in watching this bill go through. The amount of work and thought they put into it in both houses was fantastic. For them to consider all the things they considered, to come up with this mechanism for changing the system through local participation and federal funding, and then to have the developmental funding--the innovation money--to be short, is tragic.

So, the bulk of the effort in these agencies, unless you do something about it in the next couple of years, is going to be review of capital expenditures under section 1122 of the Social Security Amendment of 1972 (that's PL 92-603). Section 1122, briefly, says that anyone now getting money under Title 18 or 19 (Medicare/

Medicaid) who chooses to spend more than $100,000 on a new institution, an addition or a significant new service, must have this reviewed and approved by the HSA. This is reactive planning, not proactive planning. There's nothing wrong with that, except that the mechanism for proactive planning has not been given equal emphasis. These agencies will come up with plans, but they won't have the where-with-all to carry them out, as was envisioned in the original Act. In fact, they're not going to have as much money for these planning and review functions as was envisioned in the original Act.

At the state level, there is a state health coordinating council (SHCC) which combines the Hill-Burton and the Comprehensive Health Planning functions. The state has a health systems plan of its own; but the state plan must contain the plans of the area-wide agencies, and then add on any additional state-wide functions. We're not going to have that kind of disparity anymore. Secondly, 60% of the SHCC must be representative of the Health Systems Agencies. They are appointed by the governor, but nominees have to come from the Health Systems Agencies. So, there is interlocking. Notice that the Health Systems Agency people become a majority on these state boards. Now, finally, there is throughout this Act a personal health care/medical system focus. Free-wheeling in health planning, regardless of the logic of alternative routes to better health, is really ended in terms of priorities.

In practical terms, how is this going to affect health manpower? Well, I'm going to quote from a final report of a recent health manpower planning contract with the Bureau of Health Planning and Health

Resources Development (my own report):

> "A condition likely to prevail in Health Systems Agencies over the next 12-18 months (and we're still in that 12-18 months) is a continued widespread lack of health manpower expertise in the staffing of Health Systems Agencies, with continued staff turnover, thus continued absence in most locations of the necessary basic knowledges and skills."

The Act says that HSAs must have manpower expertise but appropriations are not going to provide enough money for that kind of staffing, and most agencies are not going to do much about it anyway. Even if money were available, the people probably aren't. Among some 301 public and private planning agencies we surveyed in 1973, we found exactly 34 full- or part-time health manpower planners, and I knew them all personally. I didn't discover one new person within these 301 agencies. Now, to my knowledge, the situation hasn't improved in any way, shape or manner. So, if you people are going to have input to Health Systems Agencies, you will have to provide whatever manpower expertise there is, in all probability. And you will have to suggest ways to solve manpower problems. It is not going to be done by the staff, in most instances. The staff may not know such simple things as health manpower categories, occupations, conditions and skills, or the way health manpower is utilized within the industry. They won't understand planning process for manpower, or manpower models, or methods for staffing and forecasting. Now, I don't happen to believe that the engineering kinds of techniques for manpower prediction are worth very much in their present state. In an industry where we can't decide on what's a good day's work for a nurse and what are the tasks she should do, it's very difficult to make predictions in manpower. But, you as faculty members, ought to know what the current techniques are, how they are used, and how some of them might be useful in a given situation. The HSAs won't have staff with that kind of expertise. They will not have organization for assembling and using manpower data and information. "Data for what?" is one of the real problems.

We were part of an inventory of health manpower decision-makers in 1973, in which we interviewed over 1600 agencies of various kinds across the country. Our respondents (over 1000) stated that the one barrier to their doing better health manpower planning and development was lack of adequate data. In analyzing their responses, we found that not one of them gave an example of one specific problem which they couldn't solve because they didn't have data and information. Lack of data is a good excuse for not doing. We don't have people who understand what kind of data to get, what you need it for, and how to use it. HSA staffs won't have expertise, either, in the use of you--use of area resources is always a problem. They're going to have high priorities for controlling capital expenditures--that's what their emphasis is going to be--and developing their annual implementation plans (AIPs). They are not going to emphasize manpower, unless you make them. At the same time they're not going to emphasize manpower, the things they are going to do (such as approving or disapproving capital expenditures or new services) will affect the manpower mix and demand in your area, and you're going to be producing people for it. If you can't build a new hospital in the suburb you've selected--after you've deserted the inner city and all its problems--because the due process won't let you, you could build a clinic out there and do minisurgery on a daily basis. But, you're not a hospital anymore. And yet, the demand for people will be affected by this kind of thing. So, there are going to be manpower changes produced by this system.

I'll give you one good example. About two years ago, I did a paper for the Bureau on "Manpower Implications of 1122 Review." There is a manpower criteria. In reviewing the new capital construction thing, consider whether manpower is available. The Bureau distributed it as a technical assistance memorandum to every agency in the country. A couple of months ago, they called me and asked if I would give them copyright rights, since they would like to distribute it again. What you can do in manpower review is prevent inflation and also use that process to build the manpower planning system. If any money is going to be spent on manpower at all, it will be for developing the planning process. Well, I laughed because the Bureau sent it out as a technical assistance memorandum. Yet, I am not aware of a single agency in the United States that applies manpower criteria in reviewing capital construction grants. They take the applicant's word for it that manpower is available.

As I said, if you are going to do something about manpower--and you are going to be affected by their decisions--you will probably have to push it. And also, if they get in trouble in manpower, they usually turn immediately to the area manpower institutions and say, "Why haven't you helped us prevent this?" It's been my experience that if you at least set up the mechanisms for input to the agency, input to your representative on the board, you may prevent manpower problems from arising and certainly can do some good. There is an interesting thing about this Board; the Agency can decide in one way or another through its nominating mechanisms who will be the allied health representative, who will be the nursing representative, who will represent education for the health field. This may suddenly turn out to be a really prestigious institution in your area, that has always known what you needed to do and what everybody else needed to do and has never taken any input from anybody; and since these boards are still being formed, it would behoove you to find out (1) how this nominating process is taking place and (2) how meaningful input from all people to be affected will be made into that board through those representatives. If they do represent you, they may not be able to speak for you unless there is a way for you to speak to them.

I think we are ready to return almost to where we started out this morning--of getting involved in the political process and using the mechanisms that are available to see that *you* are represented *in a meaningful way* and that *you do have influence on the changes in your own health service area* that will affect you and your students.

We have gained some very interesting insights from our speakers in the last couple of days. The challenge for you, in the remaining hours of this Conference, is to apply what you have learned from these presentations to studying specific problems and developing guidelines for resolving those problems in your own health systems areas.

Note: At this point, group assignments were made. The remainder of Wednesday morning and one hour following lunch were devoted to problem-solving. The reports of these small groups follow.

SMALL GROUPS SIMULATION ACTIVITY REPORTS

Group I

Leader: Joan Stoddard, Oregon

Recorder: Keith Johnson, Georgia

Problem #8

Health manpower decision-making is a diffused process, with many entities having power, even in a Health Service Area, to say nothing of a state. A unilateral decision by only one element can and often does affect the whole mix. What would be your program for dealing with this situation to achieve greater cooperation and coordination?

Solution

A. Health Service Area Board should be structured with regard to
   1. Functional representation
   2. Geographic considerations for providers and consumers
      a. Rural
      b. Urban
   3. Any categorical representation should be representative of the total category (education, for example)
   4. Availability of health resources

B. Board conduct and restraint
   1. Formalized committee input (or advisory councils) which should be part of the HSA's formal structure, possibly derived from HSA membership; should also represent the constituency to be served by the HSA
   2. Efforts should be made to restrain traditional political influences so that true representation occurs
   3. Criteria should be clearly specified; for example, HSA staff should be kept free of political "cronyism"

4. Citizen involvement through professional and civic organizations which could serve as facilitators

5. Third party evaluation, separate from political process, should be ongoing and periodic; the community should serve as part of the assessment process

Group II

Leader: Pat Jones, Tennessee

Recorder: Nell Hall, Georgia

Problem #1

Given a probable inadequate budget, what is your program for obtaining the necessary staff support to make manpower planning meaningful in the Health Systems Agency's Health Systems Plan? Use of other resources than the actual planning agency staff might be considered.

Solution

Utilize data collected by the various organizations:

1. Professional organizations
2. Hospital agencies
3. State health statistics
4. Grants (Veterans' Administration, educational institutions, private corporations)
5. Task forces - make expenses tax deductible

Problem #7

What areas of manpower planning and development should be the responsibilities of the Health Systems Agencies? The state planning body? The federal government? Why? How would you tie your area recommendations to other levels to facilitate change there that is necessary to your optimum functioning at the area level?

Solution:

A. Local - need to develop strong subarea councils; less representation now than with present CHP

B. HSA - establish a mechanism for representation on the local level

C. State

   1. SHICK - coordinating only

   2. Maintain a statewide health data base

   3. Establish priority list from HSA data

   4. Mediate between HSA when necessary

   5. Consider and review all manpower data when approving new facilities

   6. Control of production of manpower; establishing or even continuing programs for health manpower

Group III

Leader: Pat Jamison, Oklahoma

Recorder: Doris Allen, Mississippi

Problem #5

Health Systems Agency Boards will have a consumer majority. You are the allied health representative on your board. The staff is abysmally ignorant on health personnel. The consumers' perceived needs may not be the real ones. What is your recommended way of educating the board consumers so that they will appreciate what needs to be done in manpower, and will give it appropriate emphasis?

Solution

1. Become familiar with the internal workings of the board and agency operation

2. Do your homework and exercise the privilege of speaking

3. Provide a health manpower data base (e.g., official records, written materials of major concern to advisory council)

4. Provide a list of consultants and arrange for meetings as necessary

5. Elicit assistance of other allied health professions

6. Make objective observation and ask for feedback

(effective use of self)

Problem #11

The famous section 1122 of the Social Security Amendments of 1972 (PL 92-603) gives Health Systems Agencies the duty to approve all capital expenditures for new facilities, additions or new services. One (of four) criterion for review is "manpower availability". Generally, at present, not much attention is paid to this criterion. Do you think it is possible for allied health leaders to help in making this manpower assessment more meaningful? Could you see this process as an aid in planning your own program output and the effective utilization of your graduates? How would you proceed?

Solution

1. Educate board members to importance of health manpower availability (see #5); includes data base

2. Insist on appointment of allied health representative on review committee

3. If not appointed, closely monitor activities of the review committee

4. Communicate actions under consideration to other allied health leaders for comment

5. Elicit action to influence decision-making by the board

6. Exercise the privilege of speaking as a board member at facilities review meetings

(action-oriented use of self)

Group IV

Leader: Marie Vittetoe, Illinois

Recorder: Norma Schira, Kentucky

Problem #4

Poor manpower planning methods are described as a primary barrier to good health manpower planning. What do you see as the chief barriers? If you had funding, what kind of experiments would you recommend to develop the tools necessary for credible manpower development in your area?

Solution

1. Chief barriers to manpower planning:
    a. Autocratic-political set-up of many hospitals
    b. Desire to maintain status quo
    c. Maintenance of professionalism by controlling organizations
    d. Lack of education and health education
    e. Language barriers
    f. Sociocultural rejection of "outsiders"
    g. Attitudes about health care and delivery system; acute care role → prevention and maintenance
2. If there were available funding:
    a. Work with utilizers and consumers to determine what they need and want
    b. Establish mechanism for changing attitudes and philosophy about health (use local persons who are accepted in community, politicians who have credibility, etc.)
    c. Change financing mechanisms for health care from inpatient and acute to outpatient and maintenance
    d. Teach or prepare accepted "health" people in culture to help with health maintenance and education

Group V

Leader: Owen Elder, Alabama

Recorder: Margaret Singleton, Georgia

Problem #12

A new Health Manpower Act will probably pass in the next several months, with almost a two-year delay since the expiration of the Act of 1971. Much of the delay is the result of debate in both houses over how far to go in mandating medical schools to turn out more primary care personnel. There is no question, however, that some such mandate will be required. How many or what percentage seems to be the only problem. Given increased emphasis to primary care, and presumably more primary care MDs over the coming years, how would you adjust your planning and interaction with medical schools and the system to gain the maximum benefit for your graduates in this changing situation?

Solution

Given the emphasis on primary care in the Act and the probability that the number of primary care physicians will significantly increase in the next three to five years, our group felt that interaction with medical schools should be increased. Specifically, the training of physicians with a team of supportive personnel should be promoted.

In addition, the group felt that the curricula for existing types of manpower should be modified to allow for employment with primary care MDs rather than developing an array of new specialists. For example, the ADN and LPN could have some additional training in laboratory and X-ray procedures to better meet the office needs of a single primary care MD. Similarly, the medical assistant could receive additional training in these clinical procedures and in nursing arts. In addition, staffing patterns of groups of nursing and/or allied health specialists could be identified to work in medical group practice clinics (also emphasized in the Act).

Some concerns were:

1. Credentialing would be needed for the multiskill personnel, or they could be certified for specific tasks.
2. Part of the clinical experience of the multiskill personnel should be on-the-job in the primary care physician's office.

Problem #2

Even though developmental money will certainly not be available in the near-term future, what advantages can you see in having a manpower plan and even specific projects approved? How would you exploit these advantages?

Solution

Although developmental money is not available, our group felt that it would be generally advantageous to have a manpower plan and a process of approving projects.

Some specific advantages would be:

1. Elimination of duplication and operation of unneeded programs with a resultant economy in use of resources
2. Assurance of employment opportunities for graduates
3. Assurance of opportunity of local people for access to a health career locally or elsewhere

4. Impact upon the maldistribution problem locally, in the state and in the nation
5. Assurance that there would be adequate manpower for new or expanded health care delivery institutions or organizations
6. Enhancement of communication among educators, providers who will employ graduates, and all parties concerned (government offices, legislators, hospital associations, professional associations, etc.)
7. Can reduce political influence
8. Would allow for special approaches to problems and as transportable programs to meet local needs of a temporal nature

The group did express some concerns:

1. That it be based upon compilation of local data which is then collated into areawide or state plans
2. No adequate methodology for determining and updating health manpower needs (at any level) exists at present to the knowledge of our group to balance supply and demany
3. That the boards be so composed that political and special interests would not predominate (some existing manpower plans are inadequate and/or improperly implemented)

Group VI

Leader: Jim Moore, Tennessee

Recorder:

Problem #3

What is your program for obtaining significant and broadly representative input for area allied health education on the

Health Systems Agency Board? On the State Health Coordinating Council?

Solution

1. Program participants must return to home states and mine their resources; allied health personnel must be informed and involved
2. Organize; effort should be focused on securing representation of allied health professionals on the coordinating councils and Health Systems Agencies.

Leadership Conference for Instructors and Administrators in Allied Health and Nursing

Advisory Committee

Mr. Don Andrews
Director of Personnel
Appalachian Regional Hospital
Box 8086
Lexington, KY 40504

Joan M. Birchenall, Director
Health Occupations Education
Division of Vocational Education
State Department of Education
225 West State Street
P.O. Box 2019
Trenton, NJ 08625

Mrs. Laura C. Blair
State Supervisor
Health Occupations
Division of Vocational and Technical Education
State Department of Education
P.O. Box 771
Jackson, MS 39205

Dr. Ralph Boatman, Director
Office of Continuing Education in Health Sciences
University of North Carolina--Chapel Hill
Chapel Hill, NC 27514

Mr. Johnny Browne
Program Consultant
Division of Resource Development
Department of Health, Education and Welfare
Region IV, Public Health Service
Room 831, 50 7th Street, NE
Atlanta, GA 30323

Mr. William S. Conn, Jr.
Associate Director
Kentucky Hospital Association
1415 St. Anthony Place
P.O. Box 4162
Louisville, KY 40204

Dr. Charles O. Cranford, Director
Division of Resource Development
Department of Health, Education and Welfare
Regional Office
Public Health Service
1114 Commerce Street
Dallas, TX 75202

Mrs. Barbara B. Crebo, Supervisor
Health Occupations Education
Office of the State Superintendent
State of Montana
Helena, MT 59601

Dr. Owen C. Elder, Jr.
Assistant Dean
School of Community and Allied Health Resources
The University of Alabama
University Station
Birmingham, AL 35294

Dr. Thomas A. Freeland, Dean
School of Health Related Professions
The University of Mississippi Medical Center
2500 North State Street
Jackson, MS 39216

Dr. David D. Gale, Dean
College of Allied Health and Nursing
Eastern Kentucky University
Richmond, KY 40475

Dr. Wilma Gillespie
Vocational Teacher Education
College of Education
University of Louisville
Louisville, KY 40204

Mr. Jack R. Hatfield, Director
Health and Personal Service Occupations Unit
Department of Education
Bureau of Vocational Education
Frankfort, KY 40601

Dr. Lee Holder, Dean
College of Community and Allied Health Professions
62 South Dunlap
Memphis, TN 38163

Dr. Patricia Jamison
State Supervisor
Health Occupations Education
Oklahoma State Department of Vocational and Technical Education
4024 N. Lincoln Boulevard
Oklahoma City, OK 73105

Dr. Thomas E. Kargl
Bellarmine College
Newburg Road
Louisville, KY 40205

Dr. Joy M. Kirchner
Assistant Coordinator for Allied Health
Council on Public Higher Education
305 Ann Street
Frankfort, KY 40601

Dr. Benjamin F. Lawson, Dean
College of Allied Health Sciences
Medical University of South Carolina
80 Barre Street
Charleston, SC 29401

Mr. Ernest W. Michelson
Director
Division of Resource Development
Federal Office Building
50 Fulton Street
San Francisco, CA 94102

Ms. Ethel Payne
Chief, Health Manpower Branch
Department of Health, Education and Welfare
Region V, Public Health Service
300 South Wacker Drive
Chicago, IL 60606

Ms. Marie L. Piekarski
Coordinator of Program Planning and Development
University of Kentucky
Lexington, KY 40506

Mr. William M. Samuels
Executive Director
American Society of Allied Health Professionals
One Dupont Circle
Washington, DC 20036

Dr. J. Joseph Stevens
Deputy Director of Health Resources Development
Department of Health, Education and Welfare
Region VIII, Public Health Service
Federal Office Building
19th and Stout Streets
Denver, CO 80202

Mrs. Orieanna Syphax
1439 Locust Road, NW
Washington, DC 20012

Lynn M. Taylor, Program Officer
Vocational-Technical Education
Health Occupations
Department of Health, Education and Welfare
Region IV, Office of Education
50 Seventh Street, NE
Atlanta, GA 30323

Dr. Rachel Winer
Senior Supervisor
Health Occupations Education
State Department of Education
182 Tremont Street
Boston, MA 02111

Leadership Conference for Instructors and Administrators in Allied Health and Nursing

Conference Staff

Doris H. Allen
Pearl River Junior College
Route 1, Box 361S
Bay St. Louis, MS 39520

Owen C. Elder, Associate Dean
School of Community and Allied Health Resources
University of Alabama
University Station
Birmingham, AL 35233

Marion Franken
Research Specialist
Center for Studies in Vocational and Technical Education
University of Wisconsin
Madison, WI 53706

Dr. David Gale, Dean
Allied Health and Nursing
Eastern Kentucky University
Richmond, KY 40475

Nell Hall, Department Head
Health Occupations Education
Marietta-Cobb Area Technical School
Marietta, GA 30060

Patricia Jamison
State Supervisor
Health Occupations Education
Oklahoma State Department of Education
Oklahoma City, OK 73105

Patricia Jones, Instructor
Southern Missionary College
Madison, TN 37115

Bonnie H. Lawson
Assistant Professor
Florida Technological University
Orlando, FL 32816

James Moore
Director of Career Education
Volunteer State Community College
Nashville Pike
Gallatin, TN 37067

Wade Mountz, President
Norton-Children's Hospitals, Inc.
P.O. Box 655
Louisville, KY 40201

Marie L. Piekarski
Coordinator of Program Planning and Development
University of Kentucky
Breckinridge Hall
Lexington, KY 40506

Norma Jean Schira, Coordinator
Health Occupations Teacher Education
Western Kentucky University
Bowling Green, KY 42101

Joan Stoddard, Specialist
Health Occupations Education
Oregon State Department of Education
Salem, OR 97310

Center for Teacher Education--Allied Health and Nursing

Mary Elizabeth Milliken
Donald Johnson
C. Margaret Singleton
Howard C. Bailey

Leadership Conference for Instructors and Administrators in Allied Health and Nursing

Conference Participants

John T. Austell
State Coordinator, Allied Health
South Carolina State TEC System
West Columbia, SC 29169

Sybil R. Better
Coordinator, Health Sciences
University of North Carolina
Greensboro, NC 27412

Laura C. Blair, State Supervisor
Health Occupations Education
Department of Education
P.O. Box 771
Jackson, MS 39205

Billie M. Boette
Director of Nursing Department
Florence-Darlington Technical College
P.O. Drawer 8000
Florence, SC 29501

Dell A. Caldwell
Health Occupations Education
State Department of Education
Jackson, TN 38301

Julie Cave, Supervisor
Health & Personal Service Occupations
Kentucky Department of Education
Frankfort, KY 40601

Mary Jane Cent, Coordinator
Health Occupations Education
Paducah Area Vocational Education Center
Paducah, KY 42001

Clara S. Chann
Associate Director, Health Careers
Triton College
North 5th Avenue
River Grove, IL 60120

Dr. D. J. Clemens, Director
Paducah Community College
Paducah, KY 42001

William S. Conn, Jr.
Executive Vice President
Kentucky Hospital Association
P.O. Box 4162
Louisville, KY 40204

Jane Coviello
Occupational Education
University of Michigan
Ann Arbor, MI 48104

Wyeath M. Crumley
Practical Nursing Instructor
Pulaski Area Voc-Tech School
Pulaski, TN 38478

Harriet R. Denham, Supervisor
Practical Arts Unit
Department of Education
2111 Capital Plaza Towers
Frankfort, KY 40601

L. M. Detmer, Assistant Director
Department of Allied Medical Professions
American Medical Association
Chicago, IL 60610

Barbara Duffer
Assistant Professor
Medical College of Georgia
Augusta, GA 30902

Rebecca Forrest, Coordinator
Glasgow School for Practical Nurses
Glasgow, KY 42141

Rose L. Foster, Assistant Dean
Florida International University
Miami, FL 33199

Anna S. Gifford
Instructor of Nursing
Broward Community College
Ft. Lauderdale, FL 33314

Dr. Wilma B. Gillespie
Division of Vocational Education
University of Louisville
Louisville, KY 40208

Mrs. Walter S. Gresham
Georgia State Chairman
Allied Health Career Clubs
Box 520
Bowdon, GA 30108

Dr. Joseph P. Hamburg, Dean
College of Allied Health Professions
University of Kentucky
Lexington, KY 40506

Dr. James V. Hennessy
Coordinator, Community Services
Paducah Community College
Paducah, KY 42001

Mary Holstein, Chief Consultant
Health Occupations Education
Division of Vocational Education
Department of Public Instruction
Indianapolis, IN 46204

Ellen Hooker, Instructor
Health Occupations Education
University of Illinois
Urbana, IL 61801

Dr. William R. Hourigan, Dean
College of Applied Arts & Health
207 Academic Complex
Western Kentucky University
Bowling Green, KY 42101

Joan Jarett
Medical Technology Program
Spalding College
851 S. Fourth Street
Louisville, KY 40203

Moseill B. Jester, Coordinator
Danville School of Practical Nursing
Danville, KY 40422

Dallas Johnson, President
Health & Education Resources
Bethesda, MD 20014

Roscoe D. Kelley, Director
Somerset Community College
Somerset, KY 42501

Ruby Kelley, Health Instructor
Somerset Area Vocational School
Somerset, KY 42501

Elizabeth E. Kerr, Director
Program in Health Occupations Education
University of Iowa
Iowa City, IA 52240

Fred A. Lane, Administrator
DeLand Convalescent Center
Box 283
DeLand, FL 32720

Judith D. Langille, Consultant
Health Occupations Education
State Department of Education
Concord, NH 03301

Mary Lennon, Instructor
Medical College of Georgia
Augusta, GA 30902

Martha H. Lyon, Chairman
Associate Degree Nursing Program
Jefferson Community College
Louisville, KY 40201

Fred Mack, Teacher Educator
Health Occupations Education
Central State University
Edmond, OK 73034

Eloise Matthews, Specialist
Health Occupations Education
Tennessee Department of Education
Nashville, TN 37211

Mildred Metz, Director
School of Nursing
Norton-Children's Hospitals, Inc.
P.O. Box 655
Louisville, KY 40201

Mrs. Laura C. Mosley
Assistant Professor in Nursing
Berea College
Berea, KY 40403

Bibiana C. Nowacki
Health Occupations Specialist
Department of Education
Division of Occupational Education
Boston, MA 02038

Ethel Payne, Chief
Health Manpower Branch
HEW-PHS
Chicago, IL 60606

Dorothy M. Ray, Supervisor
Health Occupations
Bureau of Vocational Education
Frankfort, KY 40601

Frank A. Rose, Jr.
Health Planner
Bluegrass Regional Health Planning Council, Inc.
160 E. Reynolds Road, Suite 204
Lexington, KY 40503

Dr. M. Angelice Siebert
Acting Chairperson
Division of Allied Health
Jefferson Community College
Louisville, KY 40201

Betsy R. Cabatit Segal
Assistant Dean, Life Sciences
College of DuPage
Glen Ellyn, IL 60137

Mary Stanley
Assistant Coordinator, Health Occupations
Madisonville State Vocational Technical School
Madisonville, KY 42431

Paul S. Stark, Director
Division of Health Education
Daytona Beach Community College
Daytona Beach, FL 32015

Margarett G. Tackett
Coordinator of Practical Nursing
Mayo State Vocational Technical School
Paintsville, KY 41240

Melvina S. Thomson
Health Careers
Garth Area Vocational Education Center
Hite, KY 41638

Mary Janice Towles
Education Coordinator
Central Baptist Hospital
1740 Limestone
Lexington, KY 40503

Dr. James E. Vaught
Assistant Dean
Auxiliary Education
Indiana University School of Dentistry
1121 W. Michigan
Indianapolis, IN 46202

Dr. Marie Vittetoe
Assistant Professor
Health Occupations Education
University of Illinois
Urbana, IL 61801

Mary P. Williams
Instructor/Coordinator
Hazard Vocational School of Practical Nursing
Hazard, KY 41701

Mildred G. Winkler, Coordinator
Pineville School for Practical Nurses
Pineville, KY 40977

Lorraine H. Womack
Administrative Assistant
Southeast Alabama Health Planning Council
Dothan, AL 36301

SELECTED CONGRESSIONAL COMMITTEES, FEDERAL AGENCIES, AND NON-GOVERNMENTAL AGENCIES IN THE AREA OF HEALTH

Agencies

HEALTH, EDUCATION AND WELFARE DEPT., Alcohol, Drug Abuse and Mental Health Administration, 5600 Fishers Lane, Rockville, Md. 20852; 443-4795. James D. Isbister, acting administrator. Information, 443-2404.

Coordinates activities of the National Institute on Alcohol Abuse and Alcoholism, National Institute of Mental Health and National Institute on Drug Abuse.

HEALTH, EDUCATION AND WELFARE DEPT., Center for Disease Control, Washington office, 5600 Fishers Lane, Rockville, Md. 20852; 443-2610. Dr. Johannes Stuart, associate director in charge of the Washington office.

Center is located in Atlanta, Ga. 30333. Conducts national surveillance of disease trends and epidemics and environmental health problems; licenses clinical laboratories engaged in interstate commerce; establishes national standards for performance of diagnostic tests; administers a foreign quarantine program, the National Clearinghouse for Smoking and Health, and certain occupational safety and health programs; assists local health departments that receive federal grants for control of venereal disease, tuberculosis, childhood diseases preventable by immunization, lead-based paint poisoning and the urban rat problem.

HEALTH, EDUCATION AND WELFARE DEPT., Food and Drug Administration, 5600 Fishers Lane, Rockville, Md. 20852; 443-2410. Dr. Alexander M. Schmidt, commissioner. Information, 443-4177.

Conducts research and develops standards on the composition, quality and safety of drugs, cosmetics, other products, food additives and foods, including fish, dairy products, fresh fruit and vegetables and processed food; develops labeling and packaging standards; issues orders to companies to recall, cease selling or producing hazardous products; enforces rulings and recommends action to Justice Dept.

HEALTH, EDUCATION AND WELFARE DEPT., Health Resources Administration, 5600 Fishers Lane, Rockville, Md. 20852; 443-6510. Dr. Kenneth Endicott, administrator. Information, 443-1620.

Administers federal programs related to health resources requirements and distribution, including manpower training.

HEALTH, EDUCATION AND WELFARE DEPT., Health Services Administration, 5600 Fishers Lane, Rockville, Md. 20852; 443-2216. Dr. Robert vanHoek, acting administrator. Information, 443-2065.

Administers federal programs related to delivery of health services.

HEALTH, EDUCATION AND WELFARE DEPT., National Center for Health Statistics, 5600 Fishers Lane, Rockville, Md. 20852; 443-1326. Edward B. Perrin, director. Information 443-1204.

Compiles general health statistics, vital statistics and statistical analyses of health data.

HEALTH, EDUCATION AND WELFARE DEPT., National Institutes of Health, 9000 Rockville Pike, Bethesda, Md. 20014; 496-2433. Dr. Ronald Lamont-Havers, acting director. Information, 496-4461.

Supports and conducts biomedical research into the causes and prevention of diseases and furnishes information to the health professions. Composed of 10 research institutes, four divisions, the National Library of Medicine, the Clinical Center and the Fogarty International Center. All are at the main center in Bethesda, Md., except the National Institute of Environmental Health Sciences at Research Triangle Park, N.C. 22709 (P.O. Box 12233) and directed by Dr. David P. Rall (telephone: (919) 549-8411). The four divisions are: Computer Research and Technology, Research Grants, Research Resources and Research Services. The Clinical Center is a 516-bed research hospital. The Fogarty International Center sponsors international symposia and gives grants for international health research.

HEALTH, EDUCATION AND WELFARE DEPT., National Library of Medicine, 9000 Rockville Pike, Bethesda, Md. 20014; 496-6221. Dr. Martin Cummings, director. Information, 496-6308.

Provides medical library services and computer-based reference service to libraries in medical schools, hospitals and research institutions; operates a Biomedical Communications Network in applying advanced technology to the improvement of biomedical communications; operates a toxicology information service for the scientific community, industry and federal agencies; supports the Regional Medical Library network, research in medical library science, assistance to nonprofit scientific biomedical publications and improvement of basic library resources.

HEALTH, EDUCATION AND WELFARE DEPT., Office of the Assistant Secretary for Health, North HEW Bldg. 20201; 245-7694. Dr. Theodore Cooper, acting assistant secretary. Information, 245-6867.

Directs activities of the Public Health Service; serves as the secretary's principal adviser on health; directs and coordinates nursing home affairs and drug abuse activities; exercises specialized responsibilities in the areas of population affairs, international health, transportation and disposition of certain hazardous materials.

Congress

HOUSE APPROPRIATIONS COMMITTEE. Subcommittee on Agriculture and Related Agencies, 2362 RHOB 20515; 225-2638. Jamie L. Whitten (D.-Miss.), chairman; George Evans, staff assistant.

Appropriates funds for the Food and Drug Administration.

HOUSE APPROPRIATIONS COMMITTEE. Subcommittee on Labor and Health, Education and Welfare, 2350 RHOB 20515; 225-3508. Daniel J. Flood (D.-Pa.), chairman; Henry Neil, staff assistant.

Democrats	Republicans
Daniel J. Flood (D.-Pa.)	Robert H. Michel (R.-Ill.)
William H. Natcher (D.-Ky.)	Garner E. Shriver (R.-Kans.)
Neal Smith (D.-Iowa)	Silvio O. Conte (R.-Mass.)

Democrats
Bob Casey (D.-Tx.)
Edward J. Patten (D.-N.J.)
David R. Obey (D.-Wis.)
Edward R. Roybal (D.-Ca.)
Louis Stokes (D.-Ohio)

Appropriates funds for health agencies in the Health, Education and Welfare Dept., excluding the Food and Drug Administration, and Indian health and health facilities construction activities.

HOUSE INTERSTATE AND FOREIGN COMMERCE COMMITTEE, Subcommittee on Health and the Environment, 2415 RHOB 20515; 225-4952. Paul G. Rogers (D.-Fla.), chairman; Stephen E. Lawton, counsel.

Democrats
Paul G. Rogers (D.-Fla.)
David E. Satterfield, III (D.-Va.)
Richardson Preyer (D.-N.C.)
Stuart Symington (D.-Mo.)
James H. Scheuer (D.-N.Y.)
Henry A. Waxman (D.-Ca.)
W.G. (Bill) Hefner (D.-N.J.)
James J. Florio (D.-N.J.)
Charles J. Carney (D.-Ohio)
Timothy Wirth (D.-Colo.)
Andrew Maguire (D.-N.J.)

Republicans
Tim Lee Carter (R.-Ky.)
James T. Broyhill (R.-N.C.)
James F. Hastings (R.-N.Y.)
H. John Heinz, III (R.-Pa.)

Jurisdiction over most health legislation.

HOUSE WAYS AND MEANS COMMITTEE. Subcommittee on Health, 1102 LHOB 20515; 225-3625. Dan Rostenkowski (D.-Ill.), chairman; Bill Fullerton, professional staff member.

Democrats
Dan Rostenkowski (D.-Ill.)
James C. Corman (D.-Ca.)
Otis G. Pike (D.-N.Y.)
Charles A. Vanik (D.-Ohio)
Richard H. Fulton (D.-Tenn.)
Omar Burleson (D.-Tx.)
Joe D. Waggoner, Jr. (D-La.)
William R. Cotter (D.-Conn.)
Martha Keys (D.-Ks.)

Republicans
John J. Duncan (R.-Tenn.)
Philip M. Crane (R.-Ill.)
James G. Martin (R.-N.C.)
Donald D. Clancy (R.-Ohio)

Jurisdiction over legislation on health insurance supported by tax revenues, including Medicare, Medicaid and several national health insurance proposals.

SENATE APPROPRIATIONS COMMITTEE. Subcommittee on Agriculture and Related Agencies, 1110 DSOB 20510; 224-7272. Gale W. McGee (D.-Wyo.), chairman; Dudley D. Miles, professional staff member.

Appropriates funds for the Food and Drug Administration.

SENATE APPROPRIATIONS COMMITTEE. Subcommittee on Labor and Health, Education and Welfare, 1108 DSOB 20510; 224-7256. Warren G. Magnuson (D.-Wash.), chairman; Harley M. Dirks, professional staff member.

Democrats

Warren G. Magnuson (D.-Wash.)
John C. Stennis (D.-Miss.)
Robert C. Byrd (D.-W.Va.)
William Proxmire (D.-Wisc.)
Joseph M. Montoya (D.-N.M.)
Ernest F. Hollings (D. S.C.)
Thomas F. Eagleton (D.-Mo.)
Birch Bayh (D.-Ind.)
Lawton M. Chiles, Jr. (D.-Fla.)

Republicans

Edward W. Brooke (R.-Mass.)
Clifford P. Case (R.-N.J.)
Hiram L. Fong (R.-Hawaii)
Ted Stevens (R.-Alaska)
Richard S. Schweiker (R.-Pa.)

Appropriates funds for health agencies in the Health, Education and Welfare Dept. excluding the Food and Drug Administration, and Indian health and health facilities construction activities.

SENATE FINANCE COMMITTEE. Subcommittee on Health, 2227 DSOB 20510; 224-4515. Herman E. Talmadge (D.-Ga.), chairman; Jay Constantine, professional staff member.

Democrats

Herman E. Talmadge (D.-Ga.)
Vance Hartke (D.-Ind.)
Abraham A. Ribicoff (D.-Conn.)
Walter F. Mondale (D.-Minn.)
Mike Gravel (D.-Alaska)
William D. Hathaway (D.-Me.)
Floyd K. Haskell (D.-Colo.)

Republicans

Robert Dole (R.-Ks.)
Paul J. Fannin (R.-Ariz.)
Bob Packwood (R.-Ore.)
William E. Brock, III (R.-Tenn.)

Jurisdiction over legislation on health insurance supported by tax revenues, including Medicare, Medicaid and several national health insurance proposals.

SENATE LABOR AND PUBLIC WELFARE COMMITTEE. Subcommittee on Health, 4226 DSOB 20510; 224-7675. Edward M. Kennedy (D.-Mass.), chairman; Philip Caper and Lee Goldman, professional staff members.

Democrats

Edward M. Kennedy (D.-Mass.)
Harrison A. Williams, Jr. (D.-N.J.)
Gaylord Nelson (D.-Wisc.)
Thomas F. Eagleton (D.-Mo.)
Alan Cranston (D.-Ca.)
Claiborne Pell (D.-R.I.)
Walter F. Mondale (D.-Minn.)
William D. Hathaway (D.-Me.)

Republicans

Richard S. Schweiker (R.-Pa.)
Jacob K. Javits (R.-N.Y.)
J. Glenn Beall (R.-Md.)
Robert Taft, Jr. (R.-Ohio)
Robert T. Stafford (R.-Vt.)

Jurisdiction over most health legislation.

Non-governmental

AMERICAN HOSPITAL ASSN., 1 Farragut Square South 20006; 393-6066. Leo J. Gehrig, vice president and director, Washington office.

Membership: hospitals, other inpatient care facilities, outpatient centers, Blue Cross Plans, areawide planning agencies, regional medical programs, hospital schools of nursing and individuals. Main office is in Chicago. Carries out research and education projects in such areas as provision of comprehensive care, hospital economics, hospital facilities and design, epidemiology, community relations; publishes annual survey of hospitals and statistical data, and furnishes multimedia educational materials; requires standardization of health care facilities.

AMERICAN MEDICAL ASSN., 1776 K St., N.W. 20006; 833-8310. Harry R. Hinton, director, Washington office.

Membership: physicians who are members of state and territorial medical associations. Provides information on many aspects of the medical profession. Main office is in Chicago. Divisions include: Center for Health Services Research and Development, Communications, Management Services, Medical Education, Medical Practice, Scientific Activities, Public Affairs, Scientific Publications. Committees include: Maternal and Child Care, Medical Aspects of Sports, Research on Tobacco and Health, Transfusion and Transplantation. Councils include: Legislation; Long Range Planning and Development; Medical Education; Medical Service; Scientific Assembly. Cooperates in setting standards for medical schools and hospital intern and residency training programs; offers physician placement service and counseling on management practices.

AMERICAN NURSES'ASSN., 1030 15th St., N.W. 20005; 296-8010. Constance Halloran, director, Washington office.

Membership: registered nurses. Provides information on nursing. Main office is in Kansas City, Mo. Committee: the Council of State Boards of Nursing. Divisions include: Community Health, Geriatric, Maternal and Child Health, Medical-Surgical, Psychiatric and Mental Health Nursing. Commissions include: Congress on Nursing Practice, Economic and General Welfare, Nursing Education and Nursing Research. Sponsors the National Student Nurses' Assn., located in New York, and the American Nurses Foundation, located in Kansas City.

AMERICAN PUBLIC HEALTH ASSN., 1015 18th St., N.W. 20036; 467-5000. William H. McBeath, executive director.

Membership: physicians, nurses, educators, engineers, environmentalists, new professionals (physicians' assistants, paramedical workers, etc.), social workers, podiatrists, pharmacists, dentists, industrial hygienists, other community health specialists and interested persons. Establishes standards for public health field; discovers the etiology of communicable diseases; creates testing methods for public health workers; sponsors accreditation of public health schools; conducts research and provides information gathered by councils and sections. Sections include: Community Health Planning, Dental Health, Environment, Epidemiology, Food and Nutrition, Health Administration, Laboratory, Maternal and Child Health, Public Health Education, Public Health Nursing, Radiological Health, School Health, Social Work, Statistics and Veterinary Public Health.

COALITION FOR HEALTH FUNDING, 2233 Wisconsin Ave., N.W. 20007; 337-0991. Jonas V. Morris, president.

Membership: health organization. Promotes increased funding for the health field; provides information about funding including analyses of the federal budget.

NATIONAL LEAGUE OF CITIES. Office of Federal Relations, 1620 Eye St., N.W. 20006; 293-7380. Donald Slater, director.

Membership: heads of city departments. Promotes legislation of interest to cities and provides information about public health issues, health planning, national health insurance proposals, health manpower programs and community health services.

PUBLIC CITIZEN INC., Health Research Group, 2000 P St., N.W. 20036; 872-0320. Dr. Sidney Wolfe, director.

Ralph Nader Citizens' interest group. Interests include such health care issues as dental health, family planning including sterilization, Professional Standards Review Organizations, comprehensive health planning, hospital construction and operation, mental illness, nutrition, and the education and training of health professionals.

UNITED STATES CONFERENCE OF CITY HEALTH OFFICERS, 1620 Eye St., N.W. 20006; 293-6796. John Gunther, executive director.

Membership: city health officers. Promotes legislation of interest to city health departments and provides information about public health issues, health planning, national health insurance proposals, health manpower programs and community health services.

UNITED STATES CONFERENCE OF MAYORS, 1620 Eye St., N.W. 20006; 293-7572. Larry Bailey, assistant executive director.

Membership: mayors of cities with populations over 30,000. Promotes legislation of interest to cities and provides information about public health issues, health planning, national health insurance proposals, health manpower programs and community health services.

Compiled from Congressional Quarterly and Congressional Staff Directory. February 1976.

HEALTH LEGISLATION AGENDA: 94th CONGRESS - SECOND SESSION*
JANUARY 1976

Selected Health Program Authorizations Expiring June 30, 1976-Legislative Status:

SUBJECT AND STATUTE	BILL NO.	HOUSE	SENATE	NEXT ACTION
1. Health maintenance organizations** (Feasibility surveys, planning assistance: Title XIII, PHS Act)	H.R. 9019 S. 1926	PASSED	Hearings Completed	Senate Subc. mark-up
2. Emergency Medical Services (Title XII, PHS Act)	H.R. 11327 H.R. 7480 H.R. 8212 S. 2011 S. 2673 S. 2548	Introduced	Hearings Scheduled Late January	House Hearings to be scheduled
3. Nat. Health Service Corps. (Title III, PHS Act. Included in health manpower legislation, noted below.)	H.R. 5546 S. 989-992, 996 S. 1357 S. 2748	PASSED	Hearings Completed	Senate Subc. mark-up
4. Comprehensive alcohol abuse and Alcoholism Prevention, Treatment, and Rehabilitation Act of 1970	H.R. 4819 H.R. 11317 S. 1203	Introduced	No Action	Hearings (none announced)
5. Home health services (Demonstrations, Title VI, P.L. 94-63)	Various Bills	No Action	No Action	Hearings (none announced)

* Selected from materials distributed by the National Health Council, Inc., January 12, 1976

** Two-year extension included in HMO Amendments of 1975, which is reported here.

	SUBJECT AND STATUTE	BILL NO.	HOUSE	SENATE	NEXT ACTION
6.	Health services research* health statistics, Medical Libraries (Title III, PHS Act)	H.R. 11316	Introduced	No Action	Hearings (none announced)
7.	Diseases borne by rodents (Title III, PHS Act)	H.R. 8278	Hearings Completed	No Action	House Subcommittee mark-up
8.	Federal Fire Prevention and Control Act of 1974 (NIH burn centers)	H.R. 8438	No Action	No Action	Hearings (none announced)

Health Program Authorizations Expired June 30, 1974-Legislative Status:

	SUBJECT AND STATUTE	BILL NO.	HOUSE	SENATE	NEXT ACTION
1.	Health Manpower Training (Title VII, PHS Act)	H.R. 5546 S. 989-992;996 S. 1357 S. 2748	PASSED	Hearings completed	Senate subcommittee mark-up
2.	Nurse Training (Title VIII, PHS Act)	P.L. 94-63 (7/29/75)	PASSED	PASSED	Appropriations included in HEW 1976 first supplemental, P.L. 94-157 (12/18/75)
3.	Health Services; Family Planning (Title V, PHS Act); State Public Health Grants (Title III, PHS Act); Migrant and Neighborhood Health Centers (Title III); Community Mental Health Centers (CMH Centers Act)	P.L. 94-63 (7/29/75)	PASSED	PASSED	Appropriations included in HEW 1976 first supplemental, P.L. 94-157 (12/18/75)
4.	Developmental Disabilities (Developmentally Disabled Assistance and Bill of Rights Act)	P.L. 94-103 (10/4/75)	PASSED	PASSED	Appropriations included in HEW 1976 first supplemental, P.L. 94-157 (12/18/75)

---

* Automatic extension of one year if Congress fails to act.

Selected New Health Initiatives - 94th Congress-Legislative Status:

	SUBJECT	BILL NO.	HOUSE	SENATE	NEXT ACTION
1.	Medical malpractice	H.R. 6100 S. 188 S. 215 S. 482 and others	Subcommittee hearings in New York City	Hearings completed	House and Senate subcommittee mark-up. Action suspended.
2.	Health insurance for the unemployed	H.R. 5970 H.R. 4004 S. 625	Ways and Means and Commerce Committees completed hearings. Full committees completed mark-up but took no further action	Labor & Public Welfare reported bill. Finance held one day of hearings	No action expected
3.	Medical devices	H.R. 11124 S. 510	Commerce subcommittee reported to full committee	PASSED	Full committee review
4.	Clinical laboratories standards	H.R. 1737 H.R. 11341	Introduced	Hearings completed	Senate subcommittee to start mark-up
5.	Health education (comprehensive)	H.R. 8278 S. 1466	Hearings completed	PASSED	House subcommittee mark-up
6.	Health education (school health)	H.R. 2600 S. 544	Hearings completed	No Action	Hearings (none announced)
7.	HMO Act amendments of 1975	H.R. 9019 S. 1926	PASSED	Hearings completed	Senate subcommittee mark-up
8.	Indian health	S. 522 H.R. 2525	Subc. reported to full committee	PASSED	House Interior Committee mark-up
9.	Medicare/Medicaid Amendments	H.R. 10284	PASSED	PASSED	Signed P.L. 94-182 (12/31/75)

National Health Insurance * Identification of Major Bills:

PRIME SPONSOR	PRIVATE SECTOR SUPPORT	BILL NO.	COMMITTEE REFERRAL	COMMENT
Ullman	AHA	H.R. 1	Ways and Means	Comprehensive benefits (phased in) and eligibility; state administration thru private carriers and health care corporations, subject to Federal regulation. Cost sharing. Voluntary.
Duncan	AMA	H.R. 6222	Ways and Means Int. & Foreign Commerce	Comprehensive benefits and eligibility; administration thru state and local agencies and private carriers, subject to Federal regulation. Cost-sharing. Voluntary
Corman-Kennedy	Labor	H.R. 21 S. 3	Ways and Means	Comprehensive benefits; universal eligibility; provisions for modification of organization and delivery of services. Federal administration. No private carriers. No cost sharing. Mandatory.
Burleson-McIntyre	Health Insur. Assn. of America	H.R. 5990 S. 1438	Ways and Means Int. & Foreign Commerce	Comprehensive coverage, with some coverage phased in; comprehensive eligibility; administration thru state agencies and private carriers, subject to state supervision. Provisions for increasing supply and improving distribution of health providers and services. Voluntary. Cost sharing.
Long-Ribicoff		S. 2470	Senate Finance	Broad coverage (no dental) after 60 days hospital care and $2000 in expenses; all legal U.S. residents. Federal administration of public plan for unemployed welfare recipients, etc. Private catastrophic plan through employers financed thru employer tax, minus a tax credit.

* Note: Ways and Means field hearings scheduled to start early 1976 in Chicago; Knoxville; Miami; Salem, Oregon; San Francisco. House Health Subcommittee (Rogers Committee) has scheduled panels starting on January 18, 1976. Senate action awaits House.

BIBLIOGRAPHY OF SELECTED WASHINGTON HEALTH NEWSLETTERS*

PUBLICATION:	LEGISLATIVE ROUNDUP AMA 535 N. Dearborn Street Chicago, Illinois 60610 WEEKLY FREE	MEDICARE AND MEDICAID BULLETIN American Hospital Association 840 N. Lake Shore Drive Chicago, Illinois 60611 MONTHLY FREE
SUBJECT MATTER:	national medical legislation; coverage of hearings with emphasis on AMA participation	all actions pertinent to Medicare and Medicaid; specifics of AHA action
UNIQUE FEATURES:	none	none

&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&
&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&

PUBLICATION:	MH-MR Report Morris Associates, Inc. Governmental Affairs Consultants 2233 Wisconsin Avenue, N.W. Washington, D.C. 20007 BIWEEKLY Cost $40.00	NATIONAL ASSOCIATION OF NEIGHBORHOOD HEALTH CENTERS 1625 I Street, N.W., Suite 403 Washington, D.C. 20006 MONTHLY Cost $10.00
SUBJECT MATTER:	actions relevant to federal MH issues	association news
UNIQUE FEATURES:	none	none

&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&
&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&

PUBLICATION:	NATIONAL HEALTH INSURANCE REPORTS Plus Publications 2814 Penn. Ave., N.W. BIWEEKLY Cost $90.00	NEWS OF THE COOPERATIVE HEALTH STATISTICS SYSTEM DHEW-Public Health Service Health Resources Adm. 5600 Fishers Lane, Rockville, Md. 20852 BIMONTHLY FREE
SUBJECT MATTER:	NHI & health policy	review of health data
UNIQUE FEATURES:	none	attention to state information systems

*From a publication of the Health Policy Center, the Graduate School, Georgetown University Washington, D.C. 20057; (202) 625-3092. B-13 February 1976.

PUBLICATION:	NEWS REPORT National Health Lawyers Assn. 522 21st Street, N.W. Washington, D.C. 20006 MONTHLY Cost $20.00 non-members FREE with membership	OCCUPATIONAL HEALTH AND SAFETY LETTER Gershon Fisbein, Ed. National Press Building Washington, D.C. 20045 SEMI-MONTHLY Cost $75.00 (or $135 with Environmental Health)
SUBJECT MATTER:	legal health issues	as title indicates
UNIQUE FEATURES:	none	none (other than close focus on OSHA news)

* * *

PUBLICATION:	PSRO LETTER McGraw Hill 457 National Press Building Washington, D.C. 20045 SEMI-MONTHLY Cost $150.00	WASHINGTON ACTIONS ON HEALTH 1740 N. Street, N.W. Washington, D.C. 20036 WEEKLY Cost $85.00
SUBJECT MATTER:	utilization review and PSRO, and general health care provider regulation	significant federal health documents
UNIQUE FEATURES:	"PSRO around the Nation"	access to document retrieval; belated but handy extractions from Congressional Record and Federal Register

* * *

PUBLICATION:	WASHINGTON DEVELOPMENTS American Hospital Assn. 1 Farragut Sq., South Washington, D.C. 20006 SEMI-MONTHLY Cost $15.00 for non-members $ 5.00 for members	CITY HEALTH OFFICERS NEWS U.S. Conference of City Health Officers 1620 I Street, N.W. Washington, D.C. 20006 MONTHLY Cost $5.00
SUBJECT MATTER:	federal news of health issues in Congress; activities of agencies noted	federal health regulations, legislation and impact on local health care delivery
UNIQUE FEATURES:	News Wrap-up page; occasional legislative status report	local noted health dept. programs; annual supplement of vital statistics summary for urban centers of 100,000

PUBLICATION:	COMMUNITY HEALTH CENTERS NEWS Morris Associates, Inc. 1346 Connecticut Ave., N.W. Washington, D.C. 20036 MONTHLY Cost $30.00	ENVIRONMENTAL HEALTH LETTER Gershon Fisbein, ed. National Press Building Washngton, D.C. 20045 SEMI-MONTHLY Cost $75.00
SUBJECT MATTER:	developments at federal level affecting health services delivery	broad coverage of developing environmental issues
UNIQUE FEATURES:	methods, problems, innovations of Mental Health Care Centers; pending legislation	special supplements as news warrants

* * *

PUBLICATION:	HMO & HEALTH SERVICES REPORT Girard Association, Inc. 399 A Howard Blvd. Mt. Arlington, N.J. 07856 MONTHLY Cost $40.00 or $24.00 for 6 mos.	HEALTH/LABOR-MANAGEMENT Health/Labor-Management, Inc. 399 Howard Blvd. Mt. Arlington, N.J. 07856 MONTHLY Cost $40.00
SUBJECT MATTER:	as title indicates	cases of recent labor law
UNIQUE FEATURES:	offers history of legislation, discussion of major issues	good insert on recent law cases

* * *

PUBLICATION:	HEALTH MANPOWER REPORT Education News Service Division of Capitol Publications, Inc., Suite G12 2430 Penn.Ave., N.W. Washington, D.C. 20037 BI-WEEKLY Cost $65.00	HEALTH RESOURCES NEWS Dept. of HEW, Public Health Service Health Resources Administration 5600 Fishers Lane Rockville, Md. 20852 MONTHLY FREE
SUBJECT MATTER:	Federal health-general/current developments	Federal health news; resource development, statistics, research, manpower
UNIQUE FEATURES:	none	selected HRA reading list in most issues

PUBLICATION:	HEALTH SYSTEMS Morris Associates, Inc. Governmental Affairs Consultants 1346 Connecticut Ave., N.W. Washington, D.C. 20036 BI-MONTHLY Cost $90.00	WASHINGTON NEWSLETTER American Public Health Association 1015 18th Street, N.W. Washington, D.C. 20036 MONTHLY Cost $40.00
SUBJECT MATTER:	new developments at federal level affecting health services delivery	summary and status of federal legislation; general health news
UNIQUE FEATURES:	reports on statements made or actions taken in HEW affecting HMO's, hospitals, etc.	its perspective-a large health constituency

&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&
&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&

PUBLICATION:	GOVERNMENT RELATIONS NOTE National Health Council, Inc. 919 18th Street, N.W. Washington, D.C. 20006 MONTHLY FREE to members
SUBJECT MATTER:	summary and analysis of selected relevant health issues
UNIQUE FEATURES:	in-depth analysis; useful supplements

LEADERSHIP CONFERENCE FOR INSTRUCTORS AND ADMINISTRATORS IN ALLIED HEALTH AND NURSING

THE GALT HOUSE, LOUISVILLE, FEBRUARY 16/18, 1976

"PUTTING KNOWLEDGE TO WORK"

WEDNESDAY, FEBRUARY 18: MORNING SESSION

8:30 a.m. PRESIDING: Bonnie Lawson
Court Room INTRODUCTION OF SPEAKER: Ben Lawson
SPEAKER: Don Frey

I. PATTERNS AND TRENDS IN HEALTH PERSONNEL:

Integrating the Conference: A Summary of Monday & Tuesday's Program.

II. RELATING THE FOREGOING TO PUBLIC LAW 93-641:

The Congress's Grand Design for Putting-It-All-Together in the Health System.

--The Law and Its Prospects: An Unofficial Interpretation.

--The Law and Health Manpower: A Mixed Prognosis.

--Problems in Using the Health Planing and Resource Development Process to Create a More Rational and Responsive Health Personnel Education and Utilization System.

9:45 a.m. Refreshment Break

10:00 a.m. III. ARE THERE SOLUTIONS?

Small Group Process

	GROUP LEADERS:
Kent Room	Joan Stoddard
Turf Room	Pat Jones
General's Room	Pat Jamison
Commissioner's Room	Joan Birchenall
Court Room	Owen Elder
Mayor's Room	Jim Moore

12:00 Lunch

1:00 p.m. IV. RECOMMENDATIONS OF PANELS
Court Room

Using blackboards prepared in groups, Leaders will outline their problem-solving programs.

V. GROUP IMPROVEMENT OF PROGRAMS

Individual and group comment: "WHAT WOULD YOU ADD TO THIS SOLUTION?" "SUBTRACT?" "CHANGE OR MODIFY?" "CONSIDER IMPRACTICAL?"

Use vote or other means to obtain consensus, or agreement to disagree.

VI. COMMENT OR REACTION (If or As Necessary).

3:00 p.m. Adjournment.

* * * *

PUBLIC LAW 93-641: THE NATIONAL HEALTH PLANNING & HEALTH RESOURCES DEVELOPMENT ACT OF 1974.

> *However, the National Health Planning and Health Resources Development Act of 1974 (PL 93-641) enacted in January of 1975 creates for the first time a system of national health policy, planning, and development. This piece of legislation would be the most significant national health law to be passed on or about this second centennial period.*
>
> *WILLIAM J. CURRAN, JD, SM HYG.*
> *Public Health & the Law*
> *Am Jour Public Health, January 1976*

FINDINGS AND PURPOSE

SEC 2 (a) The Congress makes the following findings:

(1) The achievement of equal access to quality health care at a reasonable cost is a priority of the Federal Government.

(2) The massive infusion of Federal funds into the existing health care system has contributed to inflationary increases in the cost of health care and failed to produce an adequate supply or distribution of health resources, and consequently has not made possible equal access to everyone to such resources.

(3) The many and increasing responses to these problems by the public sector (Federal, State and local) and the private sector have not resulted in a comprehensive, rational approach to the present--

(A) lack of uniformly effective methods of delivering health care;

(B) maldistribution of health care facilities and manpower; and

(C) increasing cost of health care.

(4) Increases in the cost of health care, particularly of hospital stays, have been uncontrollable and infla-

tionary, and there are presently inadequate incentives for the use of appropriate alternative levels of health care, and for the substitution of ambulatory and intermediate care for inpatient hospital care.

(5) Since the health care provider is one of the most important participants in any health care delivery system, health policy must address the legitimate needs and concerns of the provider it is to achieve meaningful results; and thus it is imperative that the provider be encouraged to play and active role in developing health policy at all levels.

(6) Large segments of the public are lacking in basic knowledge regarding proper personal health care and methods for effective use of available health services.

(b) In recognition of the magnitude of the problems described in subsection (a) and the urgency placed on their solutions, it is the purpose of this Act to facilitate the development of recommendations for a national health planning policy, to augment areawide and State planning for health services, manpower, and facilities, and to authorize financial assistance for the development of resources to further that policy. . .

NATIONAL HEALTH PRIORITIES

SEC 1502. The Congress finds that the following deserve priority consideration in the formulation of national health planning goals and in the development and operation of Federal, State and area health planning and resources development programs:

(1) The provision of primary care services for medically underserved populations, especially those which are located in rural or economically depressed areas.

(2) The development of multi-institutional systems for coordination or consolidation of institutional health services (including obstetric, pediatric, emergency medical, intensive and coronary care, and radiation therapy services).

(3) The development of medical group practices (espec-

ially those whose services are appropriately coordinated or integrated with institutional health services), health maintenance organizations, and orther organized systems for the provision of health care.

(4) The training and increased utilization of physician assistants, especially nurse clinicians.

(5) The development of multi-institutional arrangements for the sharing of support services necessary to all health service institutions.

(6) The promotion of activities to achieve needed improvements in the quality health services (including PSROs).

(7) The development of health service institutions of the capacity to provide various levels of care . . . on a geographically integrated basis.

(8) The promotion of acitivies for the prevention of disease, including studies of nutritional and environmental factors affecting health and the provision of preventive health services.

(9) The adoption of uniform cost accounting, simplified reimbursement, and utilization reporting systems and improved management procedures for health service institutions.

(10) The development of effective methods of educating the general public concerning proper personal (including preventive) health care and methods for effective use of available health services.